DOCUMENT RESUME

ED 191 244 EC 130 106

AUTHOR	Hasazi, Susan E., Ed.
TITLE	Under One Cover. Maintaining Momentum: Implementing the Least Restrictive Environment.
INSTITUTION	ERIC Clearinghouse on Handicapped and Gifted Children, Reston, Va.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C.
REPORT NO	ISBN-0-86586-106-4
PUB DATE	80
CONTRACT	400-76-0119
NOTE	205p.
AVAILABLE FROM	The Council for Exceptional Children, Publication Sales Unit, 1920 Association Dr., Reston, VA 22091 ($11.25).
EDRS PRICE	MF01/PC09 Plus Postage.
DESCRIPTORS	Attitudes: Compliance (Legal): *Delivery Systems: *Disabilities: Elementary Secondary Education: *Individualized Education Programs: *Mainstreaming: *Parent Teacher Cooperation: Student Placement: *Teacher Education: *Teaching Methods

ABSTRACT

The document provides a collection of 33 previously published articles on implementing special education services in the least restrictive environment. Articles are divided into five sections (models for delivery of special education services in the least restrictive environment, training of professionals, individualized education programs, instructional practices, perceptions and attitudes, and parents as partners) and include the following titles and authors: "Who are All the Children" (W. Lance): "Mainstreaming: Definition, Development, and Characteristics" (J. Birch): "Preventive Mainstreaming: Impact of a Supportive Services Program on Pupils" (R. Cantrell and M. Cantrell): "Development and Evaluation of a Resource Teacher Program" (J. Jenkins and W. Mayhall): "An Evaluation of the Teacher Consultant Model as an Approach to Mainstreaming" (T. Miller and D. Sabatino): "Evaluating Mainstreaming Programs: Models, Caveats, Considerations, and Guidelines" (R. Jones et al.): "Higher Education's Role in Mainstreaming: An Example" (H. McKenzie): "Trends and Priorities in Inservice Training" (C. Rude): "Mainstreaming Competency Specifications for Elementary Teachers" (M. Redden and A. Blackhurst): "Training Teachers for the Severely and Profoundly Handicapped: A New Frontier" (S. Stainback et al.): "Special Education Administration Competencies Required of the General Education Administrator" (A. Nevin): "Legislative Intent and Purpose" (J. Harvey): "Issues Regarding the IEP: Teachers on the Front Line" (J. Hayes and S. Higgins): "Staying Out of Jail" (M. Reynolds): "Developing Individualized Education Programs for Young Handicapped Children" (A. Hayden and E. Edgar): "Individualized Education Programing at the Secondary Level" (P. Cegelka and M. Phillips): "Eleven Steps to Good Teaching" (S. Hasazi and R. York): "Meeting Children's Needs through Materials Modification" (L. Goodman): "Practical Task Analysis for Special Educators" (J. Moyer and J. Dardig). (SBH) (Abstract truncated because of excessive length.)

UNDER ONE COVER

MAINTAINING MOMENTUM:

Implementing the Least Restrictive Environment Concept

Edited by
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of Vermont

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EC 130106

A product of the ERIC Clearinghouse on Handicapped and Gifted Children.

Published in 1980 by The Council for Exceptional Children, 1920 Association Drive, Reston, Virginia 22091

Library of Congress Number 80-68096

ISBN 0-86586-106-4

This publication was prepared with funding from the National Institute of Education, US Department of Health, Education, and Welfare under contract no. 400-76-0119. Contractors undertaking such projects under government sponsorship are encouraged to express freely their judgment in professional and technical matters. Prior to publication the manuscript was submitted to The Council for Exceptional Children for critical review and determination of professional competence. This publication has met such standards. Points of view, however, do not necessarily represent the official view or opinions of either The Council for Exceptional Children, the National Institute of Education, or the Department of Health, Education, and Welfare.

Printed in the United States of America.

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Preface

In 1974, The Council for Exceptional Children published a book of edited readings titled *Mainstream Currents*. The articles chosen all appeared in *Exceptional Children* between 1968 and 1974 and presented concepts, problems, and delivery systems that were surfacing as a response to the changes in the field.

Since 1974, the impact of legislation, litigation, and instructional technology have influenced profoundly the manner in which special education services are delivered to children and youth. We have moved from theory into action, thus providing an arena for observation and study of instructional practices that facilitate effective integration of handicapped and nonhandicapped learners. This volume, the first in CEC's *Under One Cover* series, includes articles related to implementing special education services in the least restrictive environment that appeared in *Exceptional Children* and *TEACHING Exceptional Children* from 1975 through 1979 as well as in *Teacher, Please Don't Close the Door*, the proceedings of The Council for Exceptional Children's Invisible College on Mainstreaming, published in 1976.

Inherent in any discussion of mainstreaming are issues related to the definition of the population to be served as well as the characteristics of special education programs in integrated settings. The introductory section includes an article by Lance titled "Who Are *All* the Children?" This article reflects on the attitudes and practices related to education and treatment of handicapped individuals from the 19th century through today. The information presented demonstrates how attitudes and practices have influenced both the identification of handicapped individuals and the quality and expected outcomes of services to them. Birch's article on the definition, development, and characteristics of mainstreaming suggests the physical, instructional, and administrative components necessary to insure good programing within a mainstream environment.

Service delivery models that have demonstrated effectiveness in providing special education in integrated settings are the focus of Section I. The article by Jones, Gottlieb, Guskin, and Yoshida presents issues related to and a model for evaluation of mainstream programs. The remaining articles assess the relative effectiveness of the teacher consultant and resource teacher models in increasing the performance of handicapped students.

Section II begins with McKenzie's article, "Higher Education's Role in Mainstreaming: An Example," which provides suggestions for ways in which teacher training institutions can be helpful in preservice and inservice training of special education and regular education professionals who will be employed in integrated classroom environments. The remaining articles speak to the specific skills and training required of regular and special educators and administrators in order to insure that each handicapped learner receives a free appropriate public education in the least restrictive environment.

The articles in Section III deal with the development and implementation of individualized education programs. In "Staying Out of Jail," Reynolds suggests that compliance with regulations alone may not result in the desired outcomes for handicapped learners. He suggests that the individualized education program process should serve as a means for professionals, parents, and learners to work together creatively in designing "environments for better learning and living."

Special and regular educators are constantly searching for empirically sound and novel teaching procedures. Section IV contains articles that deal with basic instructional technology and group management techniques. The particular articles were chosen because of their applicability to regular classroom environments.

Teacher and peer attitudes have long been recognized as critical to the success of implementing special education programs in regular classrooms. In Section V, Smith and Greenberg suggest that "teachers' labeling decisions tend to be biased against lower socioeconomic levels and thus

contribute to the inappropriate labeling of these children." Foster, Ysseldyke, and Reese, in their article, "I Wouldn't Have Seen It If I Hadn't Believed It," demonstrate that teacher expectancy can be influenced negatively by the label *emotionally disturbed* even when the student is emitting "normalized" behavior. Finally, Snyder, Apolloni, and Cooke, in a review of integrated settings at the early childhood level, make specific suggestions for maximizing the potential benefits of such settings.

In Section VI, "Parents as Partners," Cain's article traces the development of organized parent groups. The remaining articles suggest procedures for parents and professionals to work together in a productive and supportive way.

Finally, in the concluding section, Prehm and McDonald's article reminds us that, although much has been achieved over the past decade, much is yet to be done. They suggest that current practices in identification and evaluation of handicapped students often make it difficult to assess multihandicapped, multicultural, and preschool exceptional children accurately. Further, they point out that much of the "yet to be served" population may live and learn in environments not traditionally considered a part of the educational continuum. Such settings as correctional facilities, group homes, preschools, and day care centers all contain children and youth potentially eligible for special education services. Questions related to curriculum, involvement of regular educators, and optimum teaching-learning conditions must be addressed in designing instructional delivery systems for these "yet to be served" children and youth.

This volume represents an attempt to compile practices that hold promise for achieving the least restrictive environment for every handicapped student. Although the feasibility of mainstreaming all handicapped students remains a controversial subject, there is a growing body of literature demonstrating that appropriate integrated environments can be arranged that benefit both handicapped and nonhandicapped students.

Susan E. Hasazi
June 1980

Introduction

Who Are *All* the Children?

WAYNE D. LANCE

WAYNE D. LANCE is Professor of Education, University of Oregon, and Director, Northwest Area Learning Resource Center, Eugene.

Editor's note: This is the seventh in a series of articles commemorating the American Bicentennial. The series is funded in part by a grant from the National Institute of Education. MAT

Education for *all* exceptional children! Two hundred years as a nation, and as we embark on the third century, we have declared through our laws and by personal commitment that, at last, none shall be excluded. The fact of education for all, meaning equal educational opportunity, has yet to catch up with the intent. Yet, there is satisfaction in knowing that the intent has been expressed in so clear a manner. As in any great endeavor, the beginnings were small, the result of vision and of personal dedication, born out of a love for humanity manifested in the actions of men and women. Vignettes selected from the history of special education serve as reminders that recent achievements may not be claimed as tributes to this generation alone, but are the fruit of seeds planted long ago by a few in recorded history and by many who never made the printed page.

Revolutionary Strides

• *Hartford, Connecticut, April 15, 1817:* The Rev. Thomas H. Gallaudet, principal of the Connecticut Asylum for the Education and Instruction of Deaf and Dumb Persons, announced today that seven pupils were enrolled on this opening day. Mr. Gallaudet returned from Europe last August where he had studied the art of instructing the deaf and dumb for nearly 15 months. The new asylum is the first permanent school for the education of deaf-mutes in this country and is supported by both private charity and an appropriation of $5,000 from the Connecticut Legislature (Fay, 1893).

• *Boston, August 18, 1831:* The New England Asylum for the Blind, incorporated over two years ago, finally has a director, it was announced today. Dr. Samuel Gridley Howe, a physician, plans to travel to the continent later this year to observe programs for the

From *Exceptional Children*, October 1976, pp. 66–76. Copyright © 1976 The Council for Exceptional Children.

blind and to engage teachers. The school is scheduled to open sometime next year once space has been found and staff employed (Farrell, 1956).

• *Boston, October 1, 1848:* An experimental school for idiotic children opened in a wing of the Perkins Institution today. Ten children are enrolled and James B. Richards has been assigned as the teacher. An amount of $2,500 per annum has been appropriated by the Legislature following the receipt of a report from a special commission chaired by Dr. Samuel Gridley Howe. The commission sees the school as a model for the rest of the country. Quoting from Dr. Howe's report " . . . it would be demonstrated that no idiot need be confined or restrained by force; that the young can be trained for industry, order, and self-respect; that they can be redeemed from odious and filthy habits, and there is not one of any age who may not be made more of a man and less of a brute by patience and kindness directed by energy and skill" (Kanner, 1964, pp. 41–42).

• *Chicago, September 17, 1900:* Demands by parents for day school classes for their blind children were realized today as a special classroom opened in a regular school in this city. Mr. John Curtis, the teacher, indicated that the program is considered to be an experiment to see if blind children can be educated nearer to their homes rather than having to reside at the state school in the southern part of the state (Farrell, 1956).

• *Worcester, Massachusetts, September, 1901:* Preparatory schools for gifted children opened in Worcester this month, initiating a new concept in education. Believed to be the first such school in the United States specifically for the benefit of unusually bright children, these schools provide seventh, eighth, and ninth graders with opportunities to accelerate their studies in Latin, French, German, and algebra, in addition to the usual studies. After two years in the preparatory school these students will enter high school with a full year's credit in these special subjects (McDonald, 1915).

• *New York City, September 1908:* Public School No. 2, under the direction of principal J. F. Reigart, began a new program for children with defective speech this month. Mr. Reigart stated that the teacher of the class has engaged in special study to prepare her to help these children overcome their speech problems. According to City School Superintendent Maxwell, "The experiment . . . demonstrates that the attempt to cure serious speech defects, which interfere with success and satisfaction in life is possible and well worth while" (McDonald, 1915, p. 88).

• *Anystate, USA, September 15, 1980:* In a special news release from the office of the State Superintendent of Public Instruction, the Superintendent announced that the goal of providing full educational opportunity to all children within the state has been achieved. He issued an invitation to anyone knowing of a child with a learning problem who is not receiving an appropriate education to please con-

tact his office immediately. "The measure of success," said the Superintendent, "is nothing less than 100%."

The first six vignettes reflect the facts of recorded history—the last encompasses a hope and confidence in the efforts of a myriad of parents, educators, legislators, and others during the remaining years of this decade.

Changing Attitudes and Changing Children

Establishment of Special Education

The recognition of the need to provide different treatments to individuals with obviously differing capacities for benefiting from the traditional educational practices led to the establishment of special education. From an historical perspective, special education may be viewed as developing through three successive stages: "(1) treatment through the segregation and restriction of resources for survival appropriate for people called different, (2) caring for people regarded as different by providing resources required for their physical existence, and (3) instructing such people so that they may be incorporated into existing, dominant social systems" (Heiny, 1971, p. 344). While examples from contemporary history may demonstrate that we have yet to fully pass from stage one, pronouncements abound that our goals have passed beyond segregation and restriction, through mere caring, to an attempt to assist the exceptional individual to be able to meet certain cultural standards. Whether those standards should be those of the dominant society or of pluralistic cultures is a much debated topic and one in which there is little consensus among special educators.

Recognition and Labeling

The vignettes from the 19th century illustrate rather nicely how special education began in this country with a recognition of the exceptional individual as a homogeneous element of the population and with labels to legitimate the classifications (Heiny, 1971). Bartel and Guskin (1971) supported the thesis that the process of identifying and so labeling individuals not only creates a handicap, but also exacerbates the condition as people so marked are treated differently. It seems that the very process which enabled large numbers of children to be educated, first in residential institutions and later in day schools and classes, often led to increasing segregation continuing into the adult years. As one reviews the early history of special education in the United States (Frampton & Rowell, 1938; Wallin, 1924), it is apparent that advances in our abilities to diagnose led to greater homogeneity in populations assigned to special programs and less opportunity for exceptional individuals to participate actively with nonhandicapped individuals.

Social Indictment

Looking back upon the early years of this century it appears that the more society became aware of the extent of handicapping conditions, especially in the area of mental retardation, the greater the alarm expressed through various forms of social indictment (Davies, 1959). This indictment, manifested in various forms of discrimination and segregation nevertheless caused an awakening among educators regarding the responsibilities public schools should assume for the education and rehabilitation of handicapped children and youth.

Leaders like Wallace Wallin directed educators' attention to a more comprehensive view of factors, both "intrinsic and extrinsic," to use Wallin's words that tended to "mar" the development of the handicapped individual (Wallin, 1914).

"Happiness First" Motto

Following such leads, pupils began to be viewed as functioning members of their *total* environment. Educators expanded their concepts of what education was really all about and the result was a broadening of the curriculum especially in day schools and day classes for the exceptional, to include a variety of training in the practical arts along with a continuing emphasis on the basic academic skills. The curriculum developed by the special class teachers of Boston prior to World War I exemplified this trend (*The Boston Way*, 1924). The "happiness first—all else follows" motto imported from abroad (Bridie, 1917) began to permeate the philosophies of special educators about this same time in our history, and while segregation of the handicapped was the order of the day, the emphasis was nonetheless one of making education a pleasant, and hopefully, practical experience.

Mainstreaming Is upon Us

This "caring attitude" on the part of educators led to a reexamination of the curriculum for the exceptional and a definite movement toward an individualization of instruction. Schwartz and Oseroff (1975) reviewed some 100 years of literature pertaining to individualized instruction and concluded that the developmental phases of this movement have led to rather highly structured systems for individualizing instruction. Thus we moved from a "happiness first" philosophy to a prevailing attitude that pupils should be able to demonstrate competency in any number of areas appropriate to their career objectives. This appears to coincide with Heiny's (1971) stages of development and we find ourselves pressing rapidly into stage three, namely providing programs such that the exceptional individual will be incorporated into the dominant social system. Mainstreaming is upon us—woven into our laws, our policies, and the very attitudes underlying the way in which we approach the development and implementation of programs for the exceptional individual.

Far More than Placement

The complexities of mainstreaming become evident as one considers the implications of a definition supplied by Kaufman, Gottlieb, Agard, and Kukic (1975):

> Mainstreaming refers to the temporal, instructional, and social integration of eligible exceptional children with normal peers based on an ongoing, individually determined, educational planning and programming process and requires clarification of responsibility among regular and special education administrative, instructional, and supportive personnel (p. 4).

As described by The Council for Exceptional Children, mainstreaming is far more than the placement of a child into a regular program for a period of time each day (Caster, 1975). The interactions of the instructional variables with social and temporal factors must all be accounted for in conjunction with the process of planning and the

delineation of role responsibility. As the implications of mainstreaming become more evident, the prevailing attitudes seem to return to social innovation rather than social perpetuation. Heiny (1971) hypothesized that, "Social reformers seek redistribution of resources in favor of those who are labeled different, and social perpetuators seek efficient and effective use of resources within the distributions obtained by reformers" (p. 348). The goal of full educational services for all children and the concept of mainstreaming embedded within that goal requires social innovation rather than a reliance on a mere perpetuation of the principle of maintenance.

A Long Time in the Making

The call for full services to all children is not a product of this decade alone. It is interesting to note the parallels in statements issuing from the executive branch of government following the White House Conference on Children and Youth in 1930 and the writings of Elsie Martens of the US Office of Education in 1944. Such statements as, "The concept of free public education for all children admits of no exceptions," and "no State program of services for exceptional children is complete *until it includes them all, with preference for none*" (Martens, 1944, pp. 1, 13) are evidence that the goal of full service to all exceptional children has been a long time in the making.

Professional organizations, like The Council for Exceptional Children, have been long time advocates of a full service concept. The Council has offered considerable assistance to education in such matters as the establishment of model legislation (Weintraub, Abeson, & Braddock, 1971) and in offering conferences and other platforms for the promotion of innovations. Organizations such as the National Association for Gifted Children have generated considerable grass roots support for specific exceptionalities, the result often being a focusing of attention on the needs of all children.

Evidence for Needed Changes

Comprehensive studies and reviews of special education programs as exemplified by the "Project on the Classification of Exceptional Children" (Hobbs, 1975a, 1975b) and the Rand Report (Kakalik, Brewer, Dougharty, Fleischauer, Genensky, & Wallen, 1974) have also begun to have impact on the attitudes regarding exceptionality as held by various segments of the public sector. Such studies, along with results of applied research, have been used as evidence for needed changes.

Equally compelling as a force to change attitudes has been the actions of the courts. Not only have the courts said that appropriate education for the handicapped is an inalienable right (Gilhool, 1973; Weintraub & Abeson, 1972), but they have also spoken out regarding the classification of students (Kirp, 1974) and due process requirements. (Abeson, Bolick, & Hass, 1975).

Responsibility of the Advocacy Function

Even as the results of litigation have been felt at every level—federal, state, and local—so too have advocates for the exceptional individual begun to organize in the form of national, state, and local advisory groups and councils. Councils on developmental disabilities are becoming active in every state (Stedman, 1976), and child advocacy

systems at the local level are involving parents and neighborhood groups (Reynolds, 1974). While advocacy may usually be defined as "an independent movement of consumers (e.g., parents, people with disabilities, and children) and their allies to monitor and change human service agencies" (Biklen, 1976, p. 309), it may also be a function performed by a public agency such as the public schools.

Among the recommendations from the "Project on the Classification of Exceptional Children," which could have tremendous impact on public school programs for the handicapped if implemented, is one dealing with assignment of responsibility for the advocacy function. The recommendation reads as follows: "The public schools should be the institution with primary advocacy responsibility for providing or obtaining educational and related services for all children in need of special assistance whose condition or life circumstances does not require their institutionalization" (Hobbs, 1975a, p. 250). Such responsibility should begin, according to the authors, as early as children are identified after birth and should continue at least through the usual school years. Schools should provide, or arrange to be provided, not only the usual educational services, but therapy, special diets, prosthetic devices, drugs, and medical and health care. The educational program should include recreational programs, halfway houses, sheltered vocational settings, and a full range of activities covering all aspects of the handicapped individual's life space.

In this, our country's bicentennial year, we find ourselves on the threshold of achieving a goal that the Rev. Gallaudet and Dr. Howe would certainly have endorsed as they commenced their heroic efforts with a mere handful of children requiring special help. Where they talked in terms of educational programs for a few, we now look to providing full services to more than 9 million mentally or physically handicapped children and youth aged 0 to 21 (Kakalik, et al., 1974). Our changing attitudes are evident—it seems well to ask, "Who are all the children?"

A Dynamic Concept of Exceptionality

The concept of exceptionality is not a static one. Over the decades as our society has moved from a position characterized by segregation of the severely handicapped and neglect of the mildly and moderately handicapped to a position marked by integration and acceptance, we have seen an expansion of the range of ages for which we believe society should assume some responsibility as well as demonstrations of responsibility for individuals who in some way have difficulties in adjusting or learning (such difficulties not being limited solely to the traditional handicaps). But the expanding concept of exceptionality goes beyond learning and adjustment problems per se to a concern for any individual for whom the usual educational program is not entirely appropriate.

Thus, over the years, the schools have periodically recognized that the needs of gifted children were not being met by the traditional instructional programs, and sporadic and isolated attempts have been made to adjust curriculum and methods for these students. Recognition that children who have been abused by parents and guardians may require adjustments in the typical school program is

another example of a dynamic concept of exceptionality. Children from minority groups who are gifted or who have handicapping conditions often have unmet needs stemming not only from their difficulties in benefiting from a typical school program because of their giftedness or handicap but further compounded by the cultural inappropriateness of materials, methods, and educational technology.

Three Dimensions

Perhaps we can best picture the expanding concept of exceptionality along three dimensions, each exerting an interactive influence upon the other: (a) chronological age, (b) degree of variation from the norm in educational related performance, and (c) environmental and cultural factors impacting on the learner's accommodation to school programs. In this decade, we are experiencing a movement to broaden the schools' responsibility up and down the age range (to wit, programs for preschool handicapped youngsters and young adult handicapped) to include the severely handicapped formerly considered the responsibility of residential institutions, and to accommodate programs to a pluralistic society and to children affected adversely by home and community influences.

Noteworthy Progress

An encouraging aspect of this expanding concept of exceptionality is a move away from rigid labels and categories toward a focus on the learning characteristics of children and the accommodation of educational programs to these characteristics. The most noteworthy progress in arriving at an understanding of the issues involved in classifying and labeling children was achieved through the "Project on the Classification of Exceptional Children" under the direction of Nicholas Hobbs (Hobbs, 1975a, 1975b). Sponsored by 10 federal agencies, 93 experts from various disciplines summarized existing knowledge relating to the topic of classification of children which was used in developing a set of 40 recommendations presented to the Secretary of Health, Education, and Welfare. A number of these recommendations are given vitality in the recently enacted "Education for All Handicapped Children Act" (Public Law 94-142).

Who Are They?

Who are all the children? They are the more than 9 million physically or mentally handicapped children and youth in this country, ages 0 to 21 who need services not required by "normal" youth (Kakalik, et al., 1974). They are the gifted and talented who usually manage to survive within traditional classroom settings but often fail to achieve their potential during the school years. As The Council for Exceptional Children declared in a resolution adopted in 1974, they are the tens of thousands of abused and neglected children for whom educators have responsibilities to assist in prevention of further injury and to provide programs to remediate the damage that has occurred (Soeffing, 1975). They are the handicapped persons from minority groups whose educational problems are compounded by failure of the curriculum and methodology to adapt to language and culture factors that impinge on the educational process (Norris & Overbeck, 1974). In short, a dynamic concept of exceptionality encompasses all the children for whom regular school programs must be adapted in order to help the children achieve in accordance with their potential,

regardless of the degree of deviance from the norm or the effects of environmental influences.

Achieving the Goal

Education for *all* exceptional children. Is this goal really within our reach? What are the resources upon which we can rest our hope for such a noble objective? What evidence exists that we are ready to move forward at an unprecedented rate? We can point to a number of encouraging trends that give substance to what could easily become an elusive goal beyond our grasp.

Federal Support

According to a recent study completed by the Rand Corporation for the Department of Health, Education, and Welfare, the annual federal expenditures for programs for all handicapped youth was in excess of $1 billion (Kakalik, et al., 1974). Of this amount, the federal government expended about $314 million for special education programs, constituting about 12% of the total amount spent nationwide by all government agencies. This evidence of federal support is only a beginning as we view the intent of Public Law 94-142 which was adopted by the Congress and approved by President Ford late last year. This law, which assures a free appropriate public education to all handicapped children, authorizes federal expenditures exceeding $3 billion annually by 1982.

Local Assistance

Proposed rules being promulgated by the Department of Health, Education, and Welfare put teeth into the Rehabilitation Act of 1973 by requiring annual efforts to locate individuals requiring special assistance and subsequent provision of as suitable an education as that provided to nonhandicapped persons (HEW, 1976). Through federal and state efforts, national, regional, and state learning resource systems are being established to provide assistance and support to exceptional children and their teachers (Lance, 1975). Smaller school districts are combining resources to better muster the resources needed to provide full educational services (Colella & Foster, 1974). Regional direction services are being established in several states to bridge the gaps between agencies serving the handicapped. Systematic representations of the concept of full educational services have been developed and disseminated (Crosson, 1975).

The Role of Technology

On another front, one is encouraged by the developments in technology which have already impacted on our ability to better serve the exceptional. The application of technology to meet the seemingly overwhelming obstacles imposed by sensory handicaps can be traced into antiquity, probably even predating Jerome Cardan's advocacy of using the sense of touch for the blind and a system of signs for the deaf in the 16th century (Farrell, 1956). It was the efforts of the brilliant blind Professor Louis Braille, however, who perfected a system of raised dots during the 1830's that was later to become such an integral part of educational programs for the blind. While this tactile system of reading has served the blind so well for over a hundred years, the potential for the application of modern technology tickles the imagination.

Already the OPTICON reader is in use in many countries

(Telesensory Systems, Inc., 1976). This compact device allows the reader to move an optical scanner across a page and to receive tactile impressions representative of the printed letters on the index finger of one hand. A blind individual, once trained to use this device, is no longer limited in the scope of reading to only those materials which have been put into braille. The "Talking Calculator," which "speaks" when the buttons are depressed and provides an audio as well as visual output, permits the blind to perform complex mathematical calculations as easily and rapidly as the seeing. Initial experimentation with the Vocoder, a device that translates auditory signals into tactual impressions for use by hearing impaired individuals, is equally exciting in its implications for improving educational opportunities for the sensory handicapped (Engelmann & Rosov, 1975). The use of microfiche readers and devices such as the Optiscope Enlarger (Hellinger & Berger, 1972) for immediate enlarging of the printed page by partially sighted individuals holds promise for bypassing the slow and expensive process of printing materials in large type. Other applications of technology, including the use of computers and specialized media, have been described (Lance, 1973), many of which can enhance the instructional process for the handicapped learner.

Commitment of the Individual

Yet, the achievement of the goal of full educational services for all exceptional children will not be a product merely of federal and state assistance or of the applications of systems and technology. Rather it depends upon the commitment of individuals ready and able to devote themselves to the demanding requirements of being an effective teacher of the exceptional individual. Anne Mansfield Sullivan exemplifies this commitment, the ability to appraise a situation and to demonstrate a caring attitude and innovative teaching style so necessary if we are to reach *all* the children. Upon arriving in Tuscumbia on March 3, 1887, Miss Sullivan found Helen Keller, an untaught, quick tempered, willful child, waiting to be guided to a full achievement of her potential. As Miss Sullivan handed Helen a doll and slowly spelled "d-o-l-l" in her hand, a relationship was begun that would eventually result in a deaf and blind child blossoming into a creative adult (Keller, 1904).

While much has changed since Rev. Gallaudet opened a school for the deaf in 1817 and Miss Sullivan held out a hand to a little girl in 1887, one constant remains: Success in helping any exceptional individual to achieve a full measure of the potential which is uniquely his is dependent upon the expression and demonstration of a loving concern by those adults who have been given the opportunity to devote themselves as teachers of exceptional children. Because this constant is still apparent in so many individuals today, the goal of a full and appropriate education for *all* exceptional children appears to almost be within our grasp.

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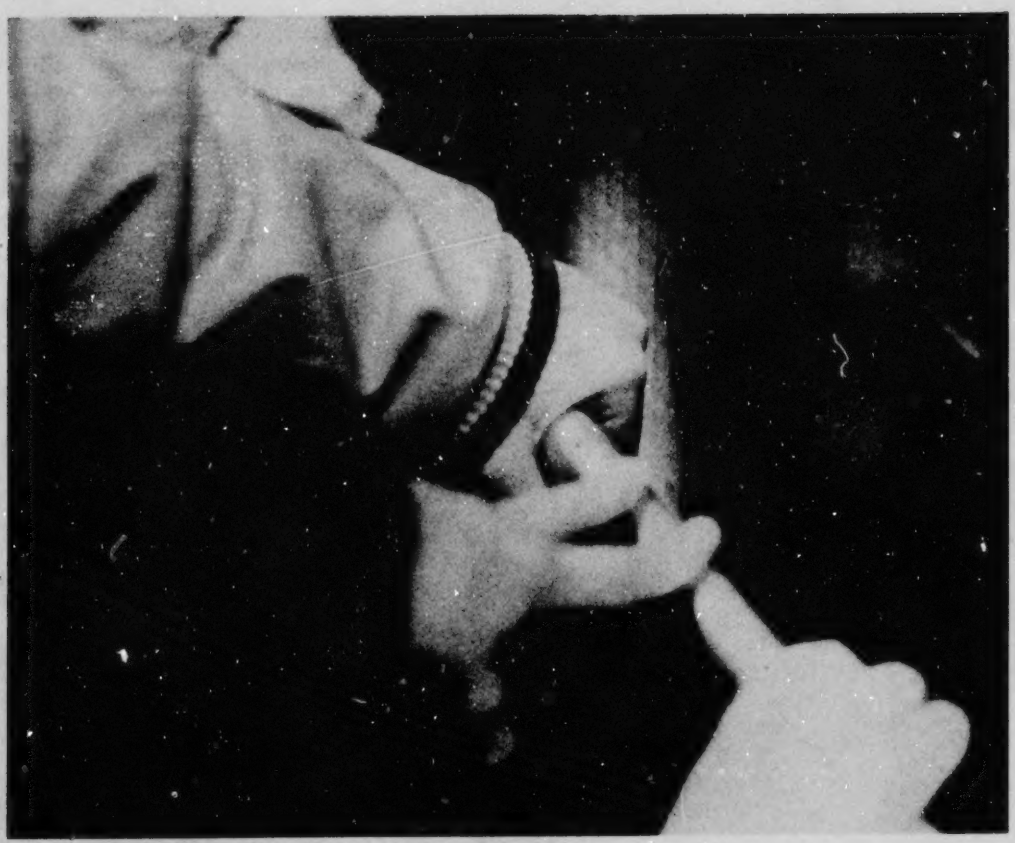
mainstreaming: definition, development, and characteristics

jack w. birch



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A PRELIMINARY DEFINITION

□ I wish I knew who first used the word "mainstreaming" to convey the idea of providing special education to exceptional children while they attend regular classes. It is a recent usage. Mainstreaming is not defined in that sense in either current educational or general dictionaries. Like many new expressions, however, mainstreaming soon took on more than one meaning. Although the term connotes the same thing to most people who use it, the specific, precise meaning varies greatly. I use mainstreaming to mean enrolling and teaching exceptional children in regular classes for the majority of the school day under the charge of the regular class teacher, and assuring that the exceptional child receives special education of high quality to the extent it is needed during that time and at any other time. Later I will elaborate on this definition, tell how it was arrived at, and relate the term mainstreaming to other approaches like resource room or itinerant teaching which are sometimes confused with mainstream approaches although they are different.

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INVESTIGATING THE FIELD

□ During the past 3½ years I have been studying mainstreaming intensively in communities all over the United States. These studies include observations in at least 200 different classes. More than 300 teachers, aides, supervisors, and principals and at least an equal number of pupils have been interviewed and observed in school settings where mainstreaming has been successful. These schools ranged from kindergartens and nursery schools to colleges. They included public and private schools, local elementary and secondary schools, and special day and residential schools.

My studies of mainstreaming concentrated on two groups, or categories, of exceptional children and youth. For about a year I probed into mainstream provisions for educable mentally retarded pupils (Birch, 1974). That investigation took me into eight different states and into school systems in impoverished rural agricultural settings as well as concentrated urban industrial settings. The second group of exceptional pupils I studied intensively was the deaf (Birch, 1975). That research also focused on mainstreaming and the investigation

The school systems I observed have altogether over 100 years of direct experience with mainstreaming.

took me from coast to coast, from city to country, and into schools of all descriptions. Although my studies concentrated on educable retarded pupils and on deaf pupils, in the process I also observed mainstreaming with all other groups of exceptional children and youth.

Thus, the impressions, ideas, and conclusions presented here are founded on direct and extensive experience. The school systems I observed have altogether over 100 years of direct experience with mainstreaming. Individually, some had as little as one year's experience. There I could watch the first struggles of a program for recognition and survival. Other school districts had had as many as 15 years of system wide mainstreaming. There I could observe what might lie ahead for the embryonic programs. And I could trace and document the history of board of education moves, community actions, alterations in the professional orientation of teachers, supervisors, and administrators, and modifications in school physical plant and facility designs which were necessary for that growth (Birch & Johnstone, 1975).

FOR DISCUSSION

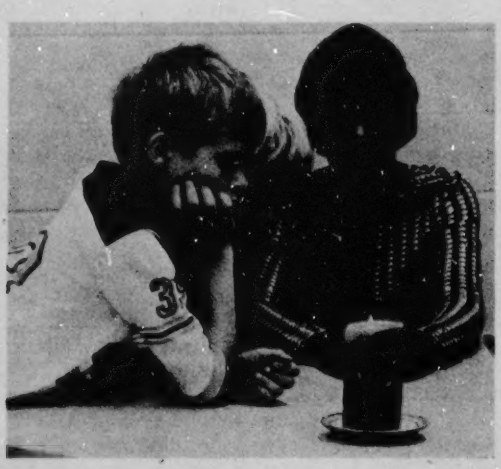
□ I should state three of my broad conclusions now to set the tone of what will follow. These conclusions are meant to provoke further discussion and are open to refinement.

Mainstreaming can be successful.

First, mainstreaming can be successful, and it often is. Success depends on recognizing and satisfying a group of specific criteria, embodied in part in the operational definition of mainstreaming.

Mainstreaming is the most desirable special educational arrangement for almost all of the recognized groups of exceptional children.

Second, mainstreaming is the most desirable special educational arrangement for almost all of the recognized categories or groups of exceptional children. This acknowledges that other schemes for providing special education are also desirable, and that mainstreaming should be the goal toward which other educational arrangements are heading and preparing each pupil. A core concept in mainstreaming is that it is feasible for regular class teachers who have consultation, assistance, and support from team teaching with special educators to become skillful enough with special education methods and materials



to use them effectively with not only borderline to mildly handicapped pupils, but also with many moderately to severely handicapped pupils. It should not be assumed that the severity of the child's physical, mental, or emotional exceptionality is the chief criterion for feasibility of mainstreaming. Rather, the availability of effective teaching methods and materials is the key factor.

Mainstreaming is feasible now for 30% of some categories to 80% of others.

Third, with the exception of two categorical groups, mainstreaming is feasible now for 30% of some categories of exceptional children in school today to 80% of others. Feasible means that (a) the needed professional competencies are identified and can be readily taught through in-service sessions, (b) necessary instructional materials are available, and (c) regular class teachers, supervisors, and administrators are surprisingly ready to cooperate. The two groups of exceptional children I have not seen successfully mainstreamed to any significant extent are trainable mentally retarded pupils and multiply handicapped pupils with marked mental retardation or a combination of deafness and blindness.

WHY DO WE NEED A DEFINITION?

□ Although the precise definition of mainstreaming presented here may not be agreeable to everyone, a definition which has general acceptance is necessary if we are to communicate with a reasonable degree of effectiveness and efficiency. Unless we reach some such meeting of minds, we can expect the examples which follow to be all too common.

First, some friends of mine sent an inquiry to superintendents of a group of residential schools for handicapped pupils to learn the nature and extent of their moves toward mainstreaming. One superintendent spoke proudly about the extensive mainstreaming being practiced. In fact, he was referring to two things: a weekly Boy Scout troop meeting after school which integrated several handicapped youngsters and a nearby church Sunday school also attended by some of the handicapped youngsters from the residential school.

Second, in the name of mainstreaming I have been shown educable mentally retarded pupils being scheduled to regular shop, home economics, music, physical education or art teachers, either as separate sections or individually in with other children. That kind of arrangement is certainly a precursor of mainstreaming but far from what it is today.

I have heard itinerant speech clinician service referred to as mainstreaming and itinerant instruction for partially seeing children renamed mainstreaming too.

I have heard itinerant speech clinician service referred to as mainstreaming and itinerant instruction for partially seeing children renamed mainstreaming too. The same is true of various resource room programs for other groups of exceptional pupils. So, if we are not to find ourselves saddled with another word that is useless because it means all things to all people, we must reach a concensus on a definition which is reality based and which is built on observable and operational criteria.

WRITING OUR OWN DEFINITION

□ About three years ago I wrote what I hoped would be such a definition. I shared it with William Ohrtman, Pennsylvania's Director of Special Education, who was also president of the Association of State Directors of Special Education. He offered a few amendments. Then we sent the definition to all state and territorial directors for their comments and suggestions. The definition below is the outcome of their responses. Our data indicates that the definition would be acceptable to the majority of state and territorial directors and that

those directors who would agree with it altogether have responsibility for approximately 75% of the nation's exceptional children.

The elements of the definition are numbered for convenient reference.

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1. Mainstreaming refers to assigning handicapped pupils to regular classes and providing special education for them.
2. In mainstreaming, regular class teachers broaden and adapt instructional procedures and content so all children are incorporated intc regular programs at levels manageable for each child and teacher.
3. Mainstreaming may be done at any level, preschool through secondary school, and beyond.
4. In mainstreaming, the handicapped pupil reports to the regular class teacher.
5. In conventionally organized schools or in open space schools the handicapped pupils being mainstreamed spend half or more of the day in regular classes.
6. In conventionally organized schools the special education teacher has a headquarters room to which pupils can come for periods of time from the mainstream rooms to which they are assigned.
7. In open space schools the special education teacher may be a member of the team serving in the open space setting or may have a separate room as headquarters.
8. Mainstreamed handicapped pupils leave the main group only for essential small group or individual instruction, educational assessment, and to pick up or deliver assignments prepared by the special education teacher.
9. The regular class teachers and the special education teachers agree upon individual schedules and assignments as needed for children being mainstreamed.
10. Regular class teachers are responsible for grades and report cards for the mainstreamed handicapped pupils, but they may consult with special education teachers on the grading.
11. Special education teachers help regular class teachers also by providing educational assessments and instructional consultation for regular class pupils who may not be eligible for special education in the usual sense.
12. Mainstreaming implies the following operating principle: Handicapped pupils usually begin their education in regular kindergarten or first grade groups with special education support, and they are removed to special classes or special schools only when the necessity to do so is shown and only for the periods required to prepare the pupils for return to regular classes.
13. Criteria for selecting handicapped pupils for mainstreaming are in terms of matching pupils' educational needs and the capability of the mainstream program to meet those needs, rather than in terms of the severity of the pupil's physical, mental, emotional, or other handicap.
14. Mainstreaming has a place in the spectrum of plans for organizing instruction, space, and facilities to accommodate the educational needs of handicapped pupils.

I do not know whether those same state directors would agree now with the definition above. There may also be other groups in the special education fraternity, e.g., teachers, teacher educators, district, intermediate unit or program directors or coordinators, who would define mainstreaming in a different way. For my part, I would not insist on the fifth element of the definition, which sets a minimum of half time in the regular class. For me, the arrangement can extend from full mainstreaming (full time in regular classes) to any degree of part time attendance. The latter should be called partial mainstreaming. When, for example, children leave the regular class for special help in resource rooms or clinical centers, they are in partial mainstreaming, provided the other stated criteria are satisfied. I can vouch only for the fact that the successful mainstream settings I have observed also fit that definition and in those school districts mainstreaming is not confused with other program patterns and models.

A HISTORICAL PERSPECTIVE

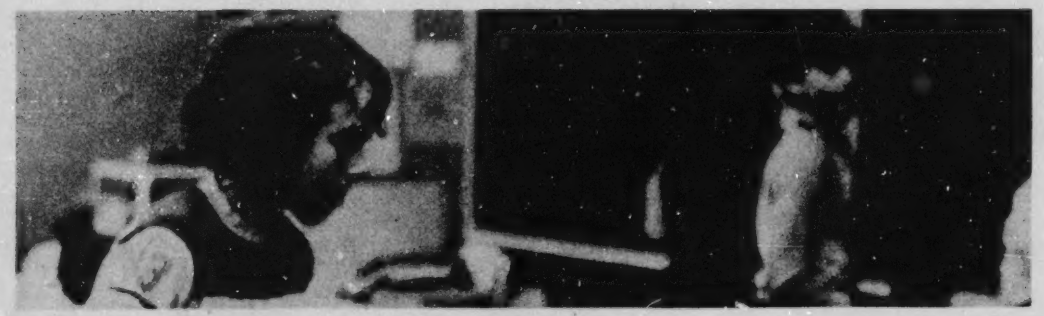
□ It is not always easy to maintain a clear perception of mainstreaming as a distinct way of organizing instruction for exceptional children. That is due partly to uncertainty about its geneology.

There are four or five different ways of accounting in an historical sense for the emergence of mainstreaming. Instead of reviewing all of them, I will tell you what I believe happened.

Mainstreaming appeared at different times in different categorical groups of exceptional children.

Mainstreaming appeared at different times in different categorical groups of exceptional children. For example, organized groups and certain leadership individuals made cases for mainstreaming gifted pupils and blind pupils respectively at least as early as the 1940's. During the same period some school districts turned from special schools for physically handicapped pupils to a pattern of integration akin to mainstreaming, though that term was not used and today's criteria were not met. It was not until much later that mentally retarded pupils were deliberately regarded as mainstreaming candidates and the motivation was quite different, arising mainly from parental pressure. Thus mainstreaming arose from a variety of pressures and directions. I have identified 11 of them:

1. The capability to deliver high quality special education almost anywhere has improved to the point that mainstreaming is more generally practicable.
2. Many parents want mainstreaming for their children and are expressing themselves directly and forcefully.
3. The rejection of the labeling of children is growing and mainstreaming is viewed as a way out.
4. Court actions have accelerated changes in special education procedures and the provision of special education in regular classes had judicial recognition as the most desirable pattern.
5. The fairness and accuracy of psychological testing has been called into question and such testing has been linked to the removal of children from regular to special classes.
6. So many children have been classified psychometrically as mentally retarded and so great has the boy - girl disparity been in some school systems that providing separated special education for so many and in such a sex imbalance was clearly not feasible.
7. Civil rights actions against segregated schooling uncovered questionable special education placement practices, especially with Black, Mexican-American, and American Indian children.
8. Cultural and educational anthropologists, social psychologists, and certain sociologists have joined educators in arguing that nonhandicapped children are deprived if their opportunities to asscciate with handicapped children are limited.
9. The effectiveness of conventional special education was questioned, especially that for mentally retarded pupils.
10. Financial support for special education from and through the states has become more flexible in some cases and made it more feasible economically for local school districts to mingle exceptional children and others while still providing the special education to the children who need it.
11. American philosophical foundations encourage diversity in the same educational setting; only lately has special education been able to assert itself to the point of moving that philosophy into everyday actuality.



FIVE VOLATILE POSITIONS

☐ We all know that education is a complex matter. We know that it can be dangerously misleading to reduce involved educational procedures to simplistic "either-or" choices. At the same time, we all know how necessary it is to cut through nonessentials in order to reach and to deal with major problems. It is in the latter spirit that I point out that there are five other highly volatile issues which are intimately linked with whether special education emphasizes mainstreaming or whether special education pursues its traditional separated and self contained posture. The five other issues polarize as follows:

1. Centralization versus decentralization
2. Inclusion versus exclusion
3. Categorical versus noncategorical
4. Integration versus segregation
5. Institutionalization versus normalization

For some people, these are significant socioeducational phenomena. For others, they are catch phrase keys to demagogery. For some people, these are concepts to be examined objectively. For others, the expressions strain under almost intolerable emotional loadings.

I hope they will be examined to see whether they are points on a continuum rather than unbridgeable extremes.

It is my hope that the relationships among the above five pairs of positions and mainstreaming will be given careful, professional consideration here. I hope they will be examined to see whether they are points on a continuum rather than unbridgeable extremes. I hope these concepts will be studied to ascertain their potential usefulness in relation to special education in general and in relation to the mainstreaming self contained continuum in particular.

☐ I know of only one school district in America which deliberately moved to the goal of systemwide mainstreaming for all exceptional children as long as 17 years ago, and then did its best to implement that goal. That is Tacoma, Washington. Perhaps there are other districts that made such a comprehensive commitment early. If so, it would be good to find them and to learn from them. But the story of Tacoma and its neighboring counties will come out later, so I will simply acknowledge its historical role here.

As I have said elsewhere,

> The principle of educating handicapped pupils in local schools along with their brothers and sisters and the rest of the neighborhood youngsters is neither new nor revolutionary. Nor is the idea of individualizing teaching for all pupils. Until recently, however, both mainstreaming and individualizing were considered to be concepts which were desirable but not readily attainable for very many exceptional children; the gap between the wish and the fact has begun to shrink. A number of school systems are proving that special education of excellent quality can be arranged for exceptional children in their neighborhood schools in regular class groupings.

Mainstreaming, like any new movement which calls for changes in attitudes, behaviors, and in socioeducational structures, has certain natural enemies. They are ignorance, tradition, and prejudice. Let us hope that we can help to provide hard facts and realistic interpretations to dispel ignorance. Let us make every effort to assure respect for tradition but not enslavement to it, and let us reason rather than simply react, limiting prejudice and making the judgment process our ally.

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I. Models for Delivery of Special Education Services in the Least Restrictive Environment

Preventive Mainstreaming: Impact of a Supportive Services Program on Pupils

ROBERT P. CANTRELL
MARY LYNN CANTRELL

Abstract: Although there are many reasons for maintaining exceptional children within the mainstream of public education, there is little empirical data directly supporting the rationale of mainstreaming. The present investigation evaluated the effects of a support teacher program in maintaining exceptional and potentially exceptional children within the regular school program. Program effectiveness was evaluated in terms of achievement score changes and frequency of referrals for traditional special services. First graders from 20 schools distributed across five school systems in Tennessee served as subjects. Low IQ (range 50–99, *N*=333), middle IQ (range 91–104, *N*=357), and high IQ (range 105–139, *N*=388) subjects differed significantly in achievement score changes as a function of the availability of support teachers to the classroom teacher. In addition, significantly more control school pupils were referred by their teachers for psychological services the following year. The results are discussed in terms of empirical support for the mainstreaming concept.

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The concept of mainstreaming, simply stated, requires that "exceptional" children be educated in the same environment as all other children wherever possible. Support for the notion of mainstreaming has grown out of earlier concerns over the doubtful efficacy of the traditional approach of separating "exceptional" children from their peers for special educational services (Blatt, 1960; Johnson, 1962; Dunn, 1968; Filler, Robinson, Smith, Vincent-Smith, Bricker, & Bricker, 1974). Conceptual support for mainstreaming on an even broader exceptionality base than mental retardation can be derived as a logical extension of an idea advanced 12 years ago by Nicholas Hobbs (1963). Project Re-ED, the realization of Hobbs' ideas, has proven to be a successful model for a number of programs for emotionally disturbed children across the country. Essentially the Re-ED approach involves: (a) viewing the child as part of an ecological subsystem, (b) analyzing the discordances in that subsystem which led to la-

Editor's note: The current contention between special educators who endorse mainstreaming, normalization, or least restrictive alternatives, and regular educators who claim they have been trained to teach only the normal child might be mitigated by considering the implications of this article. Would the ability to and attitude toward working with an exceptional child for part of a day or week be improved by including special education content and methods courses in teacher preparation programs for regular elementary education programs? Would it be advantageous for more special education training programs to prepare their students to become resource staff members, conference teachers, consultants, or support personnel? MAT

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beling the child as "different" or "problematic," and (c) utilizing the best applied knowledge currently available in the fields of education and human behavior to reduce the discordances to such an extent that the child can be maintained within the ecological subsystem. Although the Re-ED approach was implemented within the framework of a short term residential setting, these concepts are certainly applicable to public schools which are the inevitable locus of maintaining efforts. The Prevention-Intervention Project (PIP) was designed to solve children's problems prior to referral for formalized services which would demand labeling and possible exclusion from the opportunities normally available to nonproblem children. The program has used public school teachers working in conjunction with "support" teachers trained in the ecological analysis and solution of children's problems.

Support teacher training involved two phases. The first phase consisted of six weeks of intensive training of the support teams during the summer prior to the first year of intervention. Training was implemented with the aid of program modules in the following areas: (a) behavioral principles, (b) basic evaluation techniques, (c) program relevant assessment, (d) academic programing, (e) methods of contingency management, (f) group process, and (g) coordinated ecological planning. The second phase of support teacher training consisted of intensive case consultation and ongoing feedback provided for each case opened during the school year.

The purpose of this article is to report the effects-on student achievement of the availability of supportive resources from PIP. The focus is on the achievement scores of first grade students, the target groups for the first year of PIP. Student achievement has long been an accepted, although debated, measure of teacher effectiveness, and as such comprised one dimension from which differences between teachers in experimental and control schools could be assessed. An additional dimension for comparing experimental versus control teachers is the relative frequency of referring children for special education or psychological services. Dunn (1968) and Cristopolos and Renz (1969) have legitimately asked why some children are singled out for special education placement while others of comparable intellectual level are maintained in the regular classroom for extended periods of time. Regardless of the discriminable characteristics which initiate the labeling of children as deviant, providing teachers with immediate access to remediative or preventive programing for these children should lower the probability of referral for services outside of the classroom. Thus the specific hypotheses tested were: (a) first grade children in classes for which expert consultation was available would have significantly higher achievement scores than children in classes without such consultation when achievement scores were adjusted for pre-intervention achievement and IQ scores, and (b) teachers with access to expert consultation would refer fewer children for psychological and special services than teachers for whom such consultation was not available.

Method

Subjects

Pupils of first grade teachers in experimental schools (pupil N=723, teacher N=37) and control schools (pupil N=355, teacher N=18) for whom scores were obtained on the Otis-Lennon Group Intelligence Test and preyear Metropolitan Achievement Tests (Primer, form F) at the beginning of the first year of the Prevention-Intervention Project were used for this analysis. Two elementary experimental schools and two elementary control schools from each of five school systems in Tennessee were part of this project. Of the two control schools in each system, one was designated an "active" control and the other was used as a "hold-out" control. The active control schools participated in pupil achievement testing and classroom observation procedures during the first year. The hold-out control schools did not participate in the pupil testing or observational procedures. However, the hold-out control school teachers were included in the pupil referral data gathering process during the project's second year.

Procedure

Experimental school teachers had available to them trained support teachers from their school system who worked with them to solve the problems of any child or children for whom a teacher was concerned, with no specification of any set of appropriate referral criteria. Two support teachers serviced both experimental schools in each system. Support teachers (N=10) had received six weeks of intensive training in areas found useful by teachers in the Re-ED schools and were given ongoing

consultation from the staff who had trained them. They also used a structured, problem solving procedure in heuristic format (Cantrell & Cantrell, 1974) as an aid in problem identification, analysis, intervention planning, enactment and problem monitoring. Both experimental and control school teachers received computer printouts of extensive classroom observation procedures reported elsewhere (Cantrell, Wood, & Nichols, 1974), as well as the opportunity to view videotapes made during the observation activities. The video taping and observation feedback provided to control school teachers served as a partial means of dealing with the Hawthorne effect.

Referrals of pupils by experimental and control school teachers to each system's psychological services unit were obtained from each school system. Six categories of reasons for children being referred by experimental and control school classroom teachers to psychological services units within the five school systems were used: (a) suspected intellectual handicap, (b) suspected perceptual handicap, (c) underachievement, (d) physical handicap, (e) suspected emotional handicap, and (f) other—a miscellaneous category. Across the five school systems these categories were either those already used by each system's psychological services unit on their pupil referral forms or were content analyzed into these categories when teachers gave only written reasons for referral.

Statistical Analysis

All children in experimental and control schools for whom IQ, pre-achievement and postyear achievement measures were available were pooled into a single multiple regression analysis. Each student's IQ and the mean of the student's pre-achievement standard scores averaged over the achievement areas of listening, reading, and numbers served as predictor variables in a multiple regression analysis against the postyear standard score means averaged over listening, reading, and numbers in order to obtain predicted achievement scores (Manning & DuBois, 1962). Residual gain scores were next obtained by subtracting predicted achievement scores for each pupil from actually obtained postyear achievement scores. Using this procedure, students who achieved above what would have been predicted on the basis of their IQ and pre-achievement levels received a positive residual score while students who achieved below what would have been predicted on the basis of their entering IQ scores and pre-achievement scores received a negatively weighted residual score. These residual scores served as the dependent variable for a 2×3 analysis of variance. Experimental school students versus control school students composed one dimension. Three IQ levels of students composed the second dimension. Table 1 presents the IQ distribution characteristics of experimental and control school groups. Although there was a significant difference in IQ scores ($t = 2.69$, $p < .01$) of the low IQ experimental and control school groups, this was not judged of sufficient importance to detract from the ultimate results since each child's residual achievement score was individually weighted by his own IQ score and pre-achievement score.

Pupil referral data were analyzed by means of a chi square one sample test (Siegal, 1956).

Results

Means and standard deviations for the experimental and control groups at each of the three IQ levels are presented in Table 2. As can be

TABLE 1

IQ Distribution Characteristics of Experimental and Control Groups

	Experimental				*Control*			
IQ levels	*N*	*Mean*	*SD*	*Range*	*N*	*Mean*	*SD*	*Range*
Low IQ	232	81.0	7.6	51-90	101	78.1	10.7	50-90
Mid IQ	245	97.4	4.1	91-104	112	97.9	4.1	91-104
High IQ	246	114.4	8.4	105-139	142	113.2	7.0	105-135

seen from this table, low, middle, and high IQ experimental school students attained higher residual scores than did control school students at comparable IQ levels. In addition, there was less variability of achievement scores for the experimental school students than for the control school students. Analysis of variance of the achievement residuals demonstrated that these differences were significant. Table 3 presents these results.

Tables 4 and 5 present the pupil referral data from the 10 experimental and 10 control schools used in this study. Over four times more first grade pupils and two times more second grade pupils were referred by "active" and "hold-out" control school teachers than by experimental school teachers ($X^2 = 19.78$, $p < .001$). The highest frequency of referrals by control school teachers were in the areas of suspected intellectually handicapping condi-

TABLE 2

Means and Standard Deviations of Achievement Residual Scores

IQ levels	Experimental			Control		
	N	*Mean*	*SD*	*N*	*Mean*	*SD*
Low IQ	232	-3.390	22.635	101	-8.056	29.338
Mid IQ	245	6.930	18.909	112	.915	22.281
High IQ	246	- .506	12.839	142	-3.119	14.672
Total	723	1.088	19.039	355	-3.251	22.285

TABLE 3

Analysis of Variance for First Grade Students' Achievement Residuals

Source	*SS*	*df*	*MS*	*F*
Experimental vs. Control (A)	4610.62	1	4610.62	11.78*
IQ Levels (B)	14739.55	2	7369.78	18.83*
Groups × IQ Levels (AB)	459.46	2	229.73	.59
Error	419634.37	1072	391.45	

*p .001

TABLE 4

Total Number of Referrals from Experimental and Control School Teachers for Psychological Services

	Experimental	*Control*
First grade	8	34
Second grade	14	29

TABLE 5

Types of Referrals from Experimental and Control School Teachers for Psychological Services

Groups	*Intellectual handicap*	*Perceptual handicap*	*Under achievement*	*Physical handicap*	*Emotional handicap*	*Other*
Experimental	2	8	7	1	5	6
Control	12	9	34	0	10	5

Note: Discrepancies in totals are a function of some teachers referring children for more than one problem.

tions, underachievement, and emotionally handicapping conditions.

Discussion

These results support the hypothesis that regular classroom teachers who have access to resource personnel trained in ecological analysis and intervention strategies can effect significant achievement gains for students at all levels of IQ functioning. It is important to note that no one IQ level of experimental school students achieved more at the expense of any other IQ level. High IQ students within experimental schools continued to achieve commensurate with expectations for their own developmental rates even though consultation centered primarily on the problems of lower functioning pupils. Standard deviations for each of the experimental school groups were consistently lower than comparable control groups. This supports the contention that experimental school teachers tended to teach pupils at each IQ level in such a way that more homogeneity of growth rates was maintained within their classes than in control school classes. These results lend credence to current concerns for individualization of instruction in regular classrooms and provide some of the first empirical support for the concept of mainstreaming.

The finding that psychological services referral rates were lower the following year in schools where immediate aid was available to teachers for pupils having difficulties has some important implications. First of all, these results imply that teachers view the availability of immediate support services as sufficient in the majority of cases for dealing with pupil problems. Secondly, it may well be that teacher referrals to psychological services units may necessitate "building a case against the child" in order to assure that the child receives any services at all. Such cases against children may be necessary simply because traditional psychological services are often the only recourse available to teachers.

It is tempting to surmise that borderline intelligence children can be maintained within the regular public school classroom if intensively and specifically trained support teachers are made available to deal with the academic, behavioral, and other problems such children pose for the regular classroom teachers. Further, the finding that high IQ children were not penalized by such an activity in their achievement growth supports the argument that mainstreaming is possible in public school classrooms, assuming adequately trained, sufficiently motivated, supportive personnel who provide aid and on site, case related training for regular classroom teachers.

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The project reported herein was funded cooperatively by the Elementary and Secondary Education Act (ESEA), Title III (Section 306), US Office of Education; Education Professions Development Act (EPDA), US Office of Education; Bureau of Education for the Handicapped (BEH), US Office of Education; Tennessee ESEA Title III; BEH through the Tennessee Department of Education; Tennessee Department of Mental Health; Tennessee Department of Education; and five Tennessee school systems: Metropolitan Nashville-Davidson County, Memphis City, Kingsport City, Robertson County, and Hamilton County. The opinions expressed herein do not necessarily reflect the position, policy, or official endorsement of the US Office of Education or any of the above mentioned state and local agencies. Additional materials explaining the training of support teachers, types of consultation extended to support teachers and the characteristics of those pupils specifically targeted for individualized interventions are availiable from the authors upon request.

Development and Evaluation of a Resource Teacher Program

JOSEPH R. JENKINS
WILLIAM F. MAYHALL

Abstract: The critical features of the resource specialist model include a commitment to provide (a) service on core school tasks, as defined by the classroom teacher, (b) close cooperation with the child's classroom teacher, (c) one to one instruction through cross age and peer tutors, (d) direct and daily measurement of student progress, and (e) daily instruction where direct services are required. Components of the model were examined individually in controlled settings and only those components which proved effective were incorporated into the model. Finally, summative evaluations were conducted, which tested the efficacy of the entire model.

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Current educational environments for children with mild learning problems consist mainly of resource/consulting teacher programs or some form of self contained special classes. The self contained special class was a radical development of the 1930's, which grew rapidly in the 1940's and 1950's. The rationale for such classes was compelling. Children could be grouped with other children of comparable ability, lessening unfair demands on them and enabling teachers to serve a more limited ability range. The number of children per class could be limited, providing more desirable teacher-student ratios. The special teachers would have special training and experience and could employ curricula designed especially for handicapped learners. These self contained special classes proliferated, but their record has been mediocre (Cegelka & Tyler, 1970). In general, mildly handicapped children seem to achieve no better in special classes than they do in regular classes, and there is no clear evidence that such classes produce superior social adjustment (Meyerowitz, 1967; Carroll, 1967).

Resource teacher programs, which have become prominent in the 1970's, are an attempt to overcome some problems associated with special classes while maintaining a high level of service to mildly handicapped children. Despite a strong rationale for their adoption and a great deal of interest in the literature (Hammill & Wiederholdt, 1972; Deno, E., 1973; Sabatino, 1971), there is conflicting evidence on whether resource teacher programs are any more effective than the alternatives of regular or special class placement. Empirical evidence supporting the academic and/or social advantages of resource teacher programs comes from Glavin, Quay, Annesley, and Werry (1971) and Walker

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(1974). Evidence from Ainsworth (1959); Rodee (1971); Bersoff, Kabler, Fiscus, and Ankney (1972); and Tilley (1970) indicates that children receiving resource services benefit no more than children placed in regular or special classes.

These inconsistent results may stem from the variety of experimental programs being evaluated. Some models may be more effective than others, but the significant variables of successful programs have not yet been identified. Until these variables have been delineated, changing special education services to resource programs is no guarantee that such programs will enjoy differential success.

This article describes a resource teacher program, the Resource Specialist Model, that has been evaluated for its overall effectiveness as well as for its constituent components. It is hoped that this approach to program development will prevent the proliferation of ineffective programs.

Description of the Resource Specialist Model

Adocates of resource teacher programs believe either that these programs provide better instruction than other educational arrangements or that resource programs are better able to help children progress in the educational mainstream. It is this latter advantage that is emphasized here. When a child is in the educational mainstream, he is accepted as a member of a regular class. In theory, he is accepted because he is acquiring the skills that every child must master to become a full contributing member of society. In practice, the classroom teacher defines the essential, mainstream skills, for the classroom teacher is empowered to recommend that a child be retained in his current grade, be socially promoted, or be removed to a special setting (all rejections from the mainstream).

The significance attached to a particular skill will vary across school districts and schools and even across classrooms within the same school. Acceptable mainstream performance is, thus, a relative matter. Nevertheless, it seems that certain core school tasks and classroom behaviors receive special attention from teachers. Classroom teachers observe children performing these tasks, establish criteria for acceptable performance, and judge performance against these criteria. Assessment for core tasks is informal just as it is for noncore tasks. But core tasks are distinguished from noncore tasks by their consequences. Inadequate performance on core tasks may lead a teacher to resort to extraordinary measures (such as retention or referral to special education), which result in rejection of the child from the mainstream.

In reading, for example, core tasks include sounding out unfamiliar words, reading orally upon request, and answering comprehension questions. A child's failure to perform adequately on one or more of these core tasks alerts his teacher to the fact that he is not progressing in the mainstream. The criteria for acceptable performance on these core tasks will vary from teacher to teacher, with some teachers requiring more proficient word attack and oral reading than others. Similarly the reading vocabulary and comprehension questions will vary with the classroom curriculum. Thus, an inability to decode short vowel sounds dooms a first grade child whose teacher uses the SRA Basic Reading Series or the Sullivan Programmed Readers. For another child whose first grade teacher uses Scott Foresman, in which short vowel sounds are emphasized less, performance will be judged on other kinds of words.

The notion of core tasks set in different curricula and with varying performance standards has enormous implications for the resource specialist. These standards define what is to be taught and by what criteria success will be judged. The resource specialist concentrates on core tasks in the classroom curriculum while using the classroom teacher's performance standards.

Though the relationship between special education services and mainstream tasks may appear obvious, special education has relied on special curricula that bore only slight resemblance to regular education's curriculum. As a result, placement in special programs was more often permanent than temporary. When children are placed in curricula whose objectives differ significantly from regular education, then the chances are slim that they will master mainstream tasks. When special education services concentrate on reducing psycholinguistic, motor, or perceptual deficits, they have little direct effect on core classroom tasks (Hammill & Larsen, 1974; Hammill, Goodman, & Wiederholdt, 1974). Our point is not that a focus on such ability deficits is necessarily wrong in some absolute sense, rather that it misses the concern of the classroom teacher, who defines the

mainstream. A classroom teacher does not refer a child because that teacher noted an auditory sequential memory deficit. Rather, the teacher refers a child who reads ploddingly with a high error rate. The tendency to accept the aims of regular education characterizes several other resource and consulting teacher programs (Deno, S., & Gross, 1973; Lilly, 1973; McKenzie, 1972). On the other hand, for children with severe handicaps a focus on mainstream academic tasks is probably inappropriate.

Who Is Served

A resource specialist may work in a categorical, cross categorical, or noncategorical resource program (Hammill & Wiederholdt, 1972). The objectives, the delivery, and the service itself are fundamentally the same for any of these programs since the funding source for the program, not the resource specialist, determines who can be served in a resource program.

Type of Service

The resource specialist program employs both direct and indirect services. The nature and severity of the problem determine whether a child will receive direct services from the resource specialist or indirect services through consultation with the classroom teacher. For example, conduct, social behavior, and minor academic problems can be handled through structured consultation while severe academic problems usually require direct service.

Selection of direct or indirect service is based on information obtained through a referral interview which focuses on identification of problem areas. Sometimes, classroom observation and informal testing are also required. In addition, formal testing may, depending on state requirements, be necessary to establish a child's eligibility for service. The resource specialist and the referring teacher then jointly pinpoint core tasks and behaviors; identify current and acceptable performance levels; and finally select, implement, and evaluate an intervention program.

Indirect service. The indirect service function has been analyzed into five basic steps:

1. Identify core tasks or behaviors.

   Referring teachers often describe children in global terms such as immature, aggressive, uncooperative, inattentive, and hyperactive. The purpose of this first step is to replace these global descriptions with more specific descriptions of actual performance, such as unauthorized talking, being out of place, displaying physical aggression and not completing assignments.

2. Measure performance discrepancy.

   The objective of an intervention program is the reduction of the discrepancy between current and acceptable performance of core tasks or behaviors (as delineated in step 1). Thus, current performance must be measured and acceptable performance must be determined. Performances are measured over several days, preferably by the referring teacher, who also establishes criteria for acceptable performance.

3. Plan and implement an intervention program.

   Interventions may be essentially instructional, such as providing a number line, using flash cards, or providing a classroom tutor, or they may include a revision of reinforcement contingencies. In the latter case, the resource specialist relies heavily on principles of applied behavior analysis. Current and potential reinforcement contingencies are identified which may influence performance.

4. Revise the intervention program.

   The classroom teacher continues to measure performance to determine if the performance discrepancy has been reduced or if program revision is necessary. Daily measurements are employed not only to insure program accountability but also to provide the information needed to make a program self corrective.

5. Provide intermittent consultation.

   The final step in the indirect service process involves maintenance checks to insure that the child is progressing satisfactorily.

Direct services. The classroom curriculum, the performance criteria used by the classroom teacher, and the core tasks all help to define what the resource specialist will teach. However, the resource specialist may encour-

age the classroom teacher to modify the regular curriculum by suggesting alternate materials and procedures. Many classroom teachers recognize that all curricula are not suited to slower students and are quite willing to incorporate a second, more suitable series.

The six steps in the direct service process are:

1. Identify core tasks.

   During the referral interview the resource specialist determines the academic areas in which the referring teacher has noted serious performance discrepancies. The specialist determines what curricula are used, the core tasks, and the approximate standing of the referred child in the curriculum as compared with his peers.

2. Assess core task performance.

   Assessment of performance on core tasks is individual and is made in relation to the classroom curriculum. Reading assessments can be accomplished through a modified informal reading inventory in which the child reads from different levels of the series and answers comprehension questions. In arithmetic, the resource specialist determines the sequence in which basic operations are taught in the curriculum and assesses which ones have been mastered. In spelling, vocabulary is sampled progressively through the series.

3. Plan and implement an intervention program.

   Following the individual assessment the teachers reconvene to determine what performance levels are necessary to insure continued participation in the educational mainstream and to devise an intervention program. A time is scheduled for the student to receive special assistance in the resource room.

4. Provide one to one daily instruction.

   The rationale for one to one instruction is strong.First, any performance discrepancy serious enough to warrant direct services from a resource specialist is serious enough to warrant the strongest instructional arrangement known, individualized one to one instruction. Second, referred children have already demonstrated that they do not progress satisfactorily under group instruction. Further, previous research has indicated that instructional effectiveness declines rapidly as teacher-pupil ratio increases. The most rapid decline occurs as this ratio increases from 1:1 to 1:2. The number of referrals usually exceeds the capacity for one to one instruction from the resource specialist. Thus, resource specialists are encouraged to recruit, train, and supervise tutors from the community or from other classrooms in the school.

5. Instruct from a data base.

   The resource teacher obtains information for making instructional decisions by recording and charting direct and daily measures of the child's performance. Examination of charted performance permits the teacher to determine if desired performance changes are occurring, to estimate when an objective will be met, and to ascertain that a performance has reached criterion. Perhaps more importantly, the charted record of progress can demonstrate the accountability of a resource program.

6. Terminate direct services.

   When the child's current performance reaches a level comparable to that of other children who are making satisfactory progress, direct services are terminated. The classroom teacher may adopt a part or all of the instructional program developed by the resource specialist.

Evaluation of Program Components

There are numerous potential components of a resource program, many of which can be empirically examined. In the development of the resource specialist model the effects of one to one instruction, cross age tutorial instruction, direct service, daily measurement, and daily instruction were individually evaluated. Summaries of these evaluations follow.

One to One Instruction

An experiment by Moody, Bausell, and Jenkins (1973) studied the effects of various teacher-pupil ratios (1:1; 1:2; 1:5, and 1:23) on children's learning. Figure 1 depicts the differences in learning under these teacher-pupil ratios. The greatest loss occurs as the instruction ratio changes from a tutorial (1:1) setting to the smallest group setting (1:2).

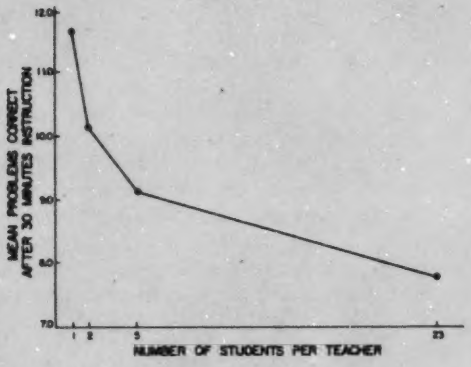

FIGURE 1. Mean correct performance under varying teacher-pupil ratios.

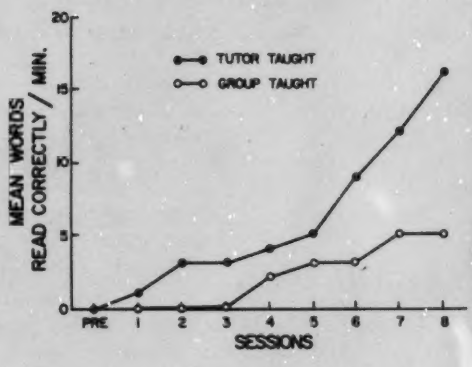

FIGURE 2. Word recognitions progress with small group and with cross age tutors instruction.

Losses continue as the ratio is increased. These data argue strongly for providing individual instruction to handicapped children who have fallen far behind their classmates.

Cross Age Tutors

Resource programs receive more referrals than a resource teacher can handle individually. Thus, even though instructional effectiveness declines as the instructional ratio increases beyond 1:1 the demand for expanded services often results in resource programs where children's instruction is "individualized" in small groups. A danger exists in such instances that conditions in the resource program grow to resemble the same classroom conditions which have already failed. A solution to this problem consists of maintaining highly individualized tutorial instruction by using cross age and peer tutors who work under the direction of a resource teacher.

A series of studies in reading, spelling, and arithmetic (Jenkins, Mayhall, Peschka, & Jenkins, 1974) compared children's learning when given small group instruction by a resource teacher and when given instruction by cross age and peer tutors. The tutors were trained and supervised by a resource teacher. The results of these studies overwhelmingly support the superiority of one to one cross age tutoring over small group teacher instruction. Figure 2 shows the comparative learning of three educable mentally handicapped children under these conditions. Each child learned more when instructed by a tutor than he did when taught by a resource teacher in a small group. As also reported by Jenkins et al., studies in other skill areas with educable mentally handicapped and learning disabled children produced similar results.

Direct Service

A study by Mayhall, Jenkins, Chestnut, Rose, Shroeder, and Jordan (1975) compared the efficacy of direct and indirect service to the child. Children showed greater progress with direct service from the resource specialist (see Figure 3). This effect is assumed to be due to the fact that while the resource specialists focused their efforts exclusively upon the referred children, the classroom teachers divided their attention between several classroom activities.

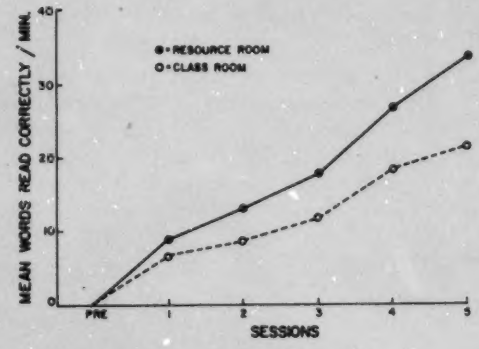

FIGURE 3. Word recognition progress with direct service in resource room and with indirect service in the classroom.

Daily Measurement

To determine the effects of daily measurement and feedback upon children's academic

performance, the resource specialist and the students receiving instruction were either permitted or not permitted to view the results of their daily performance measures (Jenkins, Mayhall, Peschka, & Townsend, 1974). Examination of Figure 4 reveals that the children's growth was positively influenced when they and their teachers were aware of daily performance.

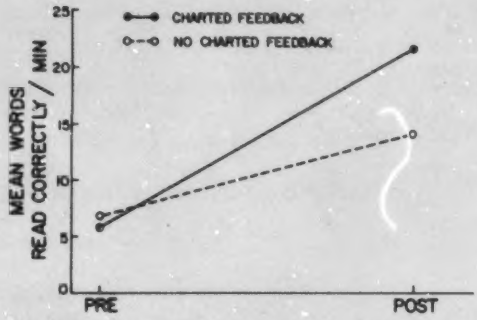

FIGURE 4. Word recognition progress with and without daily charted feedback.

Anderson (1973) recently performed a similar study on a larger scale in which she obtained identical results.

Daily Instruction

In some direct service resource programs, especially those staffed by itinerant teachers, children are seen only 2 or 3 days a week, and sometimes even less. Such programs assume that the children will benefit as much from less frequent (less than daily) but longer periods of instruction as they will from frequent (daily), short instructional periods. Mayhall and Jenkins (in press) held total instructional time constant, but varied its frequency on a daily versus nondaily (twice a week) basis. Ten learning disabled children referred to three different resource specialists were studied. All 10 progressed more rapidly with daily than with nondaily instruction. Figure 5 shows the results of this comparison.

Overall Program Evaluation

Several longer term evaluations were conducted to test the overall efficacy of the resource specialist model. In two of these evaluations children were randomly assigned to receive either direct service from a resource

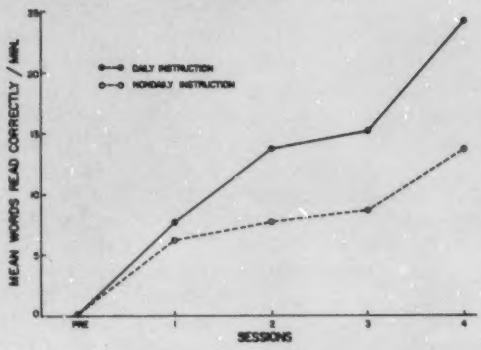

FIGURE 5. Word recognition progress with daily and with less than daily instruction.

specialist or no resource service at all. In a third evaluation, comparisons between children were impossible. Instead, children's progress in a skill area taught by a resource specialist was compared with progress in a skill area not taught by a resource specialist.

Evaluation I

The purpose of the first evaluation was twofold: (a) to determine the feasibility of implementing the resource specialist model in a public school and (b) to determine whether or not the effects of this program were reflected in performance on standardized achievement measures.

Method

Subjects and setting. Thirty children, classified either as mentally retarded or as learning disabled, served as subjects. Twenty-four children were distributed in five first and second grade classrooms, while six others were enrolled in two primary special education self contained classrooms for educable mentally handicapped children. The resource room was located in the main building of the school in a small room which was also used to store audiovisual equipment.

Procedure. All subjects were pretested with the Wide Range Achievement Test (WRAT) prior to the evaluation and posttested at the end of the school year. The tests were administered by individuals who had no knowledge of the children's treatment condition. One-half of the 24 subjects enrolled in regular classes were randomly assigned to receive direct service from the resource specialist (regular class experimentals) while the other

half received no extra service (regular class controls). Similarly, the special class subjects were matched in pairs on achievement, and one-half of each pair was randomly assigned to receive direct service from the resource specialist (special class experimentals). In addition to children who were participants in the evaluation the resource specialist provided direct services to 12 other children who were referred by their classroom teachers.

The experimental subjects attended the resource room daily for periods ranging from 30 to 60 minutes. The program was begun in mid February and ended with school in May, lasting approximately 3½ months. Instruction was given on a one to one basis either by the resource specialist or by tutors whom the resource specialist recruited and trained. The resource specialist identified performance discrepancies for each subject and designed programs to reduce these discrepancies.

Results

The reading subtest of the WRAT for the regular class experimental and control subjects reflected the services of the resource program. Figure 6 reveals that the performance level of subjects receiving resource services rose at a significantly faster rate than did that of controls ($F = 18.8$; $df = 1/22$; $p < .01$). Similarly, the special education experimentals outgained their controls on this measure (Mann Whitney $U = 0$; $p = .05$).

Evaluation II

A second evaluation was designed as a replication of the first evaluation to determine longer term effectiveness.

Method

Subjects and setting. Two schools were selected to receive itinerant service from a resource specialist. In School A, 16 children served as subjects, while in School B, 12 children served as subjects for purposes of the evaluation. All subjects were enrolled in regular classes. Most were classified as educable mentally handicapped and the remainder as learning disabled. The subjects were distributed in grades one through three. No other special education services were available in the district. An empty classroom in each school was used as the resource room. All subjects were given the Wide Range Achievement Test in the fall and again at the end of the school year. In addition to the experimental children, the resource specialist served 8 other eligible children.

Procedure. One-half of the 16 subjects in School A were randomly assigned to receive direct service from the resource specialist (School A experimentals). Service was limited to assistance in reading at School A since the itinerant resource specialist spent only afternoons at the school. Random assignment was not possible in School B. Instead, from the first 12 referrals the 6 children with the lowest achievement were selected to receive direct service (School B experimentals). Both reading and arithmetic deficiencies received attention from the resource specialist at School B.

The itinerant program began at School B in September but service to School A was delayed until the end of October when the district psychologist completed testing for eligibility in special education. Children attended the resource room daily for periods ranging from 20 to 60 minutes.

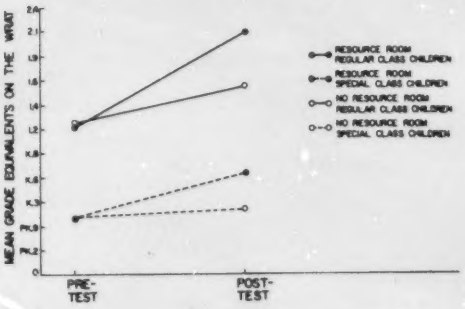
MEAN GRADE EQUIVALENTS ON THE WRAT
RESOURCE ROOM REGULAR CLASS CHILDREN
RESOURCE ROOM SPECIAL CLASS CHILDREN
NO RESOURCE ROOM REGULAR CLASS CHILDREN
NO RESOURCE ROOM SPECIAL CLASS CHILDREN
PRE-TEST
POST-TEST

FIGURE 6. Pre and post achievement test performance for regular and special class children receiving or not receiving resource service.

Results

In School A, where the children were randomly assigned to treatment groups, there were no significant pretest differences in either arithmetic or reading. However, at the end of the year the reading achievement of the experimental subjects was significantly greater than the control subjects ($t = 3.12$; $df = 14$; $p < .01$). In contrast, the difference between these same groups in arithmetic, which was not taught in the resource room, was insignificant.

In School B where random assignment was

impossible, analyses were conducted on posttest scores. Since the experimental subjects were selected on the basis of their relatively poorer pretest performance, there is a strong bias against them on the final achievement measure. Even with this bias, a comparison of experimental and control performance on the final reading measure revealed that the experimental subjects significantly outperformed their controls (correlated $t = 2.87$; $df = 5$; $p < .025$). In arithmetic no differences between the groups were observed on the final measure. This may be partially explained by the initial difference between the two groups, which was greater than 1 year. However, if arithmetic *gain* is considered, the experimental subjects outgained the controls 1.8 years to .6.

Figure 7 shows the relative gains in arithmetic and reading made by the subjects in the two schools. In School A, where only reading was taught in the resource room, the experimental children outgained their controls in reading but not in arithmetic. In School B, where children were taught both reading and arithmetic in the resource room, the experimental children outgained their controls in both reading and arithmetic.

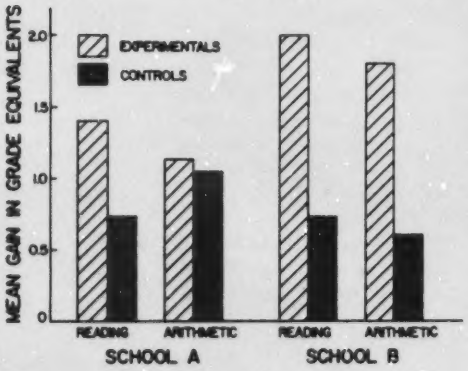

FIGURE 7. Mean achievement gains of experimental and control children in School A where reading was taught in resource program and in School B where both reading and arithmetic were taught in resource program.

Evaluation III

Agreements were made with three other school districts to implement the resource specialist program. However, circumstances did not permit the random assignment of eligible children to these resource programs. Since the districts considered reading more important than other academic skills, they confined the direct services of the resource specialists to reading instruction. No other modifications were made in the resource specialist model. Resource specialists provided both indirect services and one to one direct services on a daily basis with the help of student tutors, and daily measures on the effects of instruction were maintained. Even though the opportunity was lost to evaluate the effects of the resource program by comparing progress of children who did or did not receive service, it was, nevertheless, possible to make within children comparisons. That is, since children received direct services only in reading, it was possible to compare their relative growth in reading with that in arithmetic, which was not taught in these resource programs. All children were tested on the Wide Range Achievement Test at the beginning and end of the program. In all three schools children gained more in reading than they did in arithmetic.

Conclusion

Education has seen many innovations (e. g., team teaching, homogeneous grouping, special classes, and programed instruction). Even promising ones seem often to end in disappointment. Nearly every state has shown interest in the resource teacher innovation, supporting and promoting new resource teacher programs for handicapped learners. The literature makes it clear that many resource teacher programs are poorly conceived and hence fail to influence the learning of children. The formative and summative evaluative model employed in the development of the Resource Specialist Program might serve as a model for the development of special education programs. Such an evaluation model could help program developers in selecting effective program components and discarding those that are ineffective.

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An Evaluation of the Teacher Consultant Model as an Approach to Mainstreaming

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Abstract: Two special education resource service models are contrasted for their effects on student achievement and on teacher and pupil behavior. Academic performance gains were equivalent for both models (teacher consultant and resource room), while teacher behaviors were judged slightly better under the teacher consultant model. Both approaches were superior to controls (no service). The parallel academic gains coupled with improved teacher behaviors suggest utility in having both models in operation within a continuum of services. The data support increased instruction in the regular classroom, thereby promoting many of the goals of mainstreaming through education in the least restrictive alternative, improved regular teacher skills, and attenuation of the effects of labeling.

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THERE are data (Glavin, 1971; Reger & Koppman, 1971; Sabatino, 1971, 1972) to suggest that gains can be achieved for at least some educable mentally handicapped and learning disabled children in resource rooms. The impact of these data has resulted in the acceptance of a resource room service delivery mechanism that retains many of the best features of both the traditional and the self contained class (Dunn, 1968). Resource rooms appear to be a response to both recent litigation (e.g., *Hobson v. Hansen*) and recent legislation (P. L. 94–142), which have provided two popular special educational concepts: mainstreaming and the least restrictive alternative.

Despite behavioral data that support the effectiveness of the general resource room model, and despite litigation and legislation that promote its use, little has been done to develop and evaluate variations such as the teacher consultant model. The teacher consultant model differs from a traditional resource room model in that it employs an itinerant special educator whose major focus is to serve handicapped children *through* the direct skill improvement of regular teachers in regular classrooms. Several authors (Christie, McKenzie, & Burdett, 1972; McKenzie, 1972; McKenzie, Egner, Knight, Perelman, Schneider, & Garvin, 1970) have constructed teacher consultant models, but despite their intuitive appeal (e.g., less student time spent out of the regular class, better trained teachers, reduction in labeling stigma), there are few data available to determine the effectiveness of a teacher consultant model. In view of the importance of this model, this study sought to compare the teacher con-

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sultant and the resource room models of service delivery with mildly handicapped children.

Method

Subjects

Learning disabled and educable mentally handicapped children from 58 public and parochial schools in a large metropolitan area in Illinois participated in this study. Learning disabled children were identified as those who had normal intelligence (greater than 85 on the Slosson Intelligence Test for Children and Adults, Slosson, 1963), two or more years deficit in academic achievement, and low scores on perceptual-language expression measures. Educable mentally handicapped children were identified as those with IQ's below 75 on the Slosson and two or more years deficit in academic performance. The teacher consultant model contained a total of 261 children (240 learning disabled, 21 educable mentally handicapped; 178 boys, 83 girls). The resource room model contained a total of 219 children (202 learning disabled, 17 educable mentally handicapped; 138 boys, 81 girls). The control group contained 67 children (62 learning disabled, 5 educable mentally handicapped; 44 boys, 23 girls). Overall, 547 mildly handicapped children with a mean age of 8 years, 4 months, participated as subjects in the study.

Procedure

Teacher consultant model. Teacher consultants can best be described as facilitators, not implementors. In essence, their task was to convey best practice skills to the regular teacher, who then accepted the primary responsibility for implementation. Accordingly, teacher consultant model special educators devoted their energy directly to regular teachers and, through them, to children.

The participants in the teacher consultant model were 153 regular teachers. These teachers were served by 17 special education teacher consultants throughout one-half of the elementary system (29 schools). The 17 special education teachers served these schools on a full day every day, full day every other day, or every third day basis. Each special education teacher consultant served approximately 700 children in units of one, two, or three buildings. Nine of the special education teacher consultants were located in one building, five served two buildings, two served three buildings, and one served four buildings. The teacher consultants served approximately 14 teachers on weekly schedules that varied according to need. The amount of time was not controlled; teachers literally spent days in some classes and minutes in others. Teacher consultants were available for emergency service.

Resource room model. Teachers in the resource room model participated in the familiar activities associated with this role: diagnosis, prescription, intensive clinical lessons, report writing, and so on. The emphasis was not on instruction to the regular teacher. On the contrary, resource room services were provided to children directly; only incidental training of regular teachers took place.

In the resource room model, 122 regular teachers were served by 16 resource teachers in an additional 29 schools (total of 58 schools). These resource room teachers worked from the same building formula as the teacher consultants, in 45 minute instructional blocks. A single teacher provided assistance daily, twice, or three times a week to approximately 14 children. The mean age, training level, experience, and type of certificate held by this group was quite similar to the teacher consultant model special education teachers.

The dependent measures of academic achievement were collected during the last 2 weeks of October and the last 2 weeks of May by graduate students in school psychology and special education. All data collectors were carefully trained in the administration procedures of the standardized tests that were used. The dependent measures were drawn from the Word Recognition and Arithmetic subtests of the Wide Range Achievement Test (WRAT) (Jastak, Bijou, & Jastak, 1965) and the Reading Comprehension subtest of the Peabody Individual Achievement Test (PIAT) (Dunn & Markwardt, 1970). Table 1 provides subject demographic and pretest data for all students on the WRAT and PIAT. Subjects in the experimental and control groups were compared on all pretest (dependent) measures. No statistically significant differences were found; thus all groups were presumed to be equivalent prior to experimental treatment.

Classroom interaction was observed using a modified Flander's (1966) device redesigned to describe eight teacher behaviors and six stu-

dent behaviors. All the observers were experienced teachers with no knowledge of the nature of the study; all were pursuing a master's degree in special education. The observers were introduced to the observation instrument and shortly thereafter conducted daily observation for 2 weeks on a population of children similar to those in the study. The mean interrater reliabilities (each pair of observers) calculated on this 2 week training period ranged from .88 to .94. In the study, 3 weeks of observation were made initially in January. Each observation lasted 20 minutes and was conducted by four observers visiting classrooms on a 3 day a week basis. The second observation was conducted over the last week of April and the first 2 weeks of May (just prior to the posttesting). The ratings (scores) over each 3 week observation period were collapsed into baseline and posttest measures prior to analysis.

Results

This investigation was not a true research design intended to specify the effectiveness of a particular curricula strategy. Rather, it was concerned with the evaluation of the instructional process of two service delivery systems. Interpretation of the following data should bear this caveat in mind.

Academic Achievement

Table 2 presents posttest achievement score gains. As may be seen, visual inspection indicates that WRAT Word Recognition and WRAT Arithmetic scores increased in all instances, while PIAT Reading Comprehension yielded a mixed response. In order to test these data, an analysis of covariance (ANACOVA) was performed for each of the dependent measures (WRAT Word Recognition and Arithmetic,

TABLE 1

Demographic and Pretest Data of Subjects by Handicapping Condition and Group Assignment

Dependent measure	*Teacher consultant model*			*Resource room model*			*Control*		
	Group	*LD*	*EMH*	*Group*	*LD*	*EMH*	*Group*	*LD*	*EMH*
n	261	240	21	219	202	17	67	62	5
Mean age (in months)	99	100	100	101	102	93	99	101	79
WRAT									
Arithmetic	21.63	22.58	16.64	21.71	22.26	16.76	20.61	21.69	13.92
Word recognition	36.26	37.48	25.28	38.42	39.29	30.72	32.29	34.88	19.21
PIAT									
Reading comprehension	27.85	28.56	22.00	29.68	20.17	23.54	18.84	19.98	11.75

TABLE 2

Posttest Gains for All Subject Conditions (Raw Scores)

Dependent measure	*Teacher consultant model*			*Resource room model*			*Control*		
	Group	*LD*	*EMH*	*Group*	*LD*	*EMH*	*Group*	*LD*	*EMH*
n	261	240	21	219	202	17	67	62	5
WRAT									
Word recognition	+6.18	+7.26	+5.15	6.83	6.87	6.48	+3.99	+3.93	4.35
Arithmetic	+3.24	+3.27	+2.84	+3.36	+3.32	+4.92	+2.02	+1.89	2.78
PIAT									
Reading comprehension	−3.77	−3.05	−5.28	−4.00	−3.75	−4.54	+5.63	+5.48	+8.45

PIAT Reading Comprehension). In each case, the 3 (groups) × 2 (sex) analysis of covariance was covaried on the appropriate pretest measure. The results of these analyses indicated that scores on WRAT Word Recognition ($F = 7.99$, df 2/541, $p < .01$) and Arithmetic ($F = 3.90$, df 2/541, $p < .02$) demonstrated gains well beyond chance. Consequently, the Newman-Keuls test was applied to determine the nature of these significant F ratios. Students in both the teacher consultant model and the resource room model achieved significantly higher posttest scores for WRAT Word Recognition ($p < .01$) and WRAT Arithmetic ($p < .02$). Controls demonstrated no change in either measure. Further, Newman-Keuls analyses failed to identify any significant differences between students in the teacher consultant model and students in the resource room model for either WRAT Word Recognition or WRAT Arithmetic. Said another way, those children served in a regular classroom by special education teacher consultants achieved at a rate similar to those children attending resource rooms on a daily basis.

Student-Teacher Interaction

Figure 1 graphically indicates the results of the observational measures. Teacher consultant model regular teachers demonstrated a significant fall-spring gain in "accepts feelings" ($F = 7.75$, $df = 1/87$, $p < .01$) as well as a higher spring rating in this category ($F = 3.99$, $df = 1/87$, $p < .05$) compared to resource room model regular teachers. Teacher consultant model regular teachers indicated fall-spring gains in "praises or encourages" ($F = 4.54$, $df = 1/87$, $p < .05$) and in "accepts or uses ideas of students" ($F = 10.13$, $df = 1/87$, $p < .01$). Neither group demonstrated gains in "asks questions." Teachers in both teacher consultant and resource room models demonstrated fall-spring gains in "lecturing" ($F = 5.29$, $df = 1/87$, $p < .05$ and $F = 5.29$, $df = 1/87$, $p < .05$, respectively). Teacher consultant model regular teachers were seen to lecture more than resource room model regular teachers ($F = 6.78$, $df = 1/87$, $p < .01$). Neither group was seen to change in "gives directions," while resource room model regular teachers reduced "criticizes students" ($F = 7.32$, $df = 1/87$, $p < .01$) but remained more "critical" ($F = 5.55$, $df = 1/87$, $p < .05$) than teacher consultant model regular teachers. Regular teachers in the teacher consultant model gained in "communication" ($F = 6.07$, $df = 1/87$, $p < .05$) during the fall-spring measure.

Among the six student behaviors, only a single statistically significant event occurred: Students in the resource room model were rated significantly higher ($F = 5.73$, $df = 1/87$, $p < .05$) in the physical nondirective category during the spring ratings. No additional differences were noted.

Discussion

Academically, neither the teacher consultant nor the resource room emerged as a clearly superior service delivery model. Both represented definite improvement over the absence of any special education support service (i.e., control subjects). However, one could argue that the consultation model was surprisingly effective, since academic gains were on par with the direct service approach. That is, regular teachers seemingly became as effective in delivering instruction to special children within their classes as resource teachers were in intensive, "out of mainstream" classes. This seems to provide tentative support for the consultation model, especially in view of the short duration of the project (6 months for academic measures and 3 months for observational measures).

The significant gains observed on the WRAT Word Recognition and Arithmetic subtests were not observed on Reading Comprehension as measured by the PIAT. This failure is perplexing but, in retrospect, there may have been at least two contributing factors. First, the reliability of the PIAT is relatively low (reliability for grade 3 Reading Comprehension is given as .73). Secondly, the WRAT Word Recognition section is largely a recognition/definition task, while the PIAT Reading Comprehension task essentially requires extraction of meaning from context. Obviously, the latter is a more sophisticated and integrated task dependent on the acquisition of many subskills.

A review of teacher-pupil interaction may be more meaningful than the achievement data. Significant increments in several teacher behaviors were found (greater acceptance of feelings, increased praise and encouragement, more imparting of information, reduced criticism, increased communication with students), which would probably be accepted by

most persons as desirable attributes of the classroom instructor's behavior. However, even though both experimental groups demonstrated gains, measures of teacher behavior improvement were more frequently observed in the teacher consultant model. Such a finding might be expected, since the focus was on change through continued inservice training in the regular classroom, a part of which must certainly be an alteration of behavior produced by the primary instructional delivery unit—the regular teacher.

Student behavior change was not dramatic. This may be accounted for in at least two ways. First, the behavioral levels of students appear to be appropriate throughout the study. That is, perhaps no radical change in student behavior was sought by the teachers. Second,

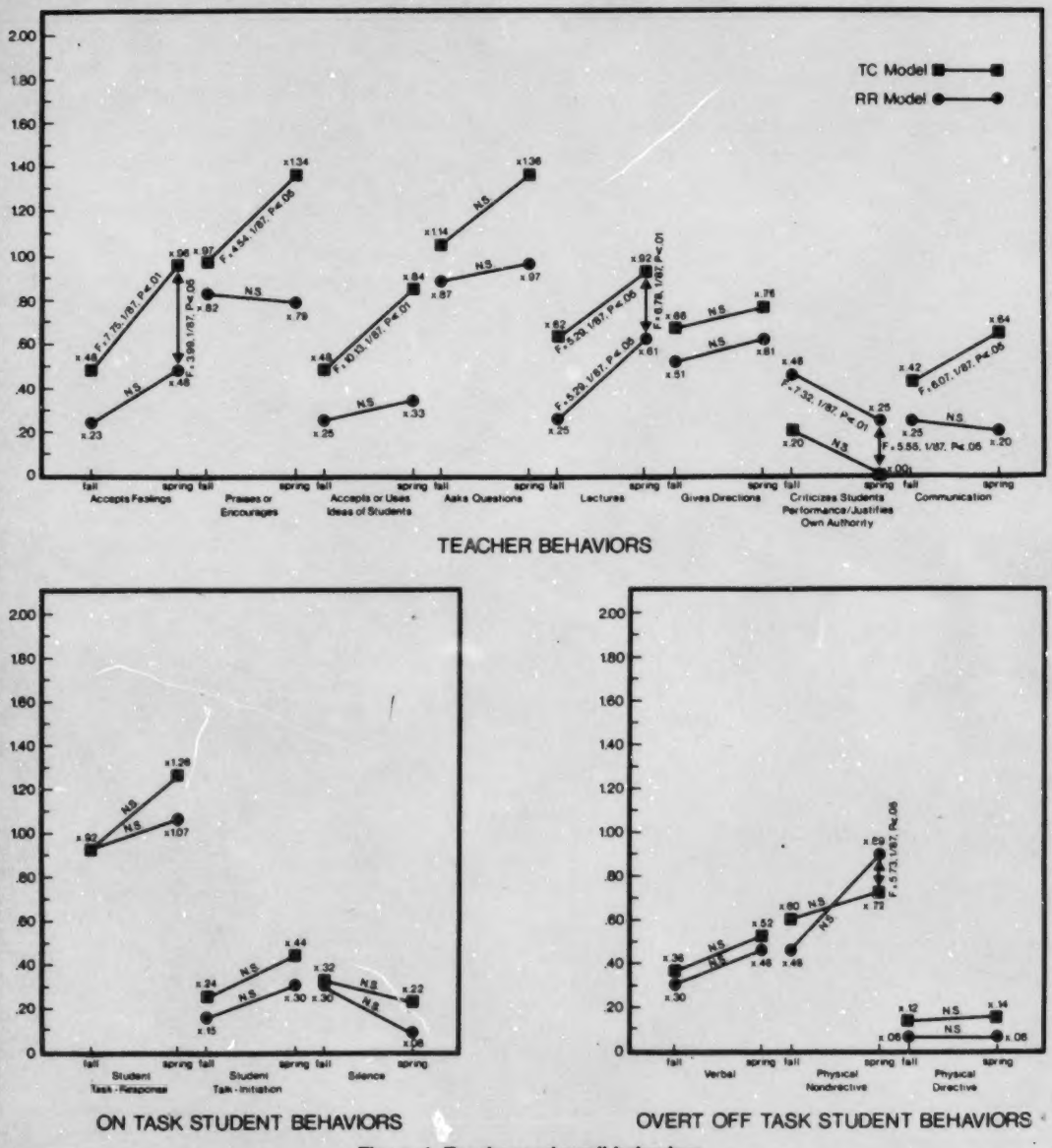

Figure 1. Teacher and pupil behaviors.

teacher change in response to the consultants' influence must have been gradual. It is thus doubtful that the change in teachers' behaviors was sufficiently consistent, or of long enough duration, to alter the students' behaviors effectively.

Finally, an administrative question appears in the thought that the number of teachers the special education teacher consultant is able to work with might be greater than the number of children the resource teacher can work with. In fact, careful scrutiny indicated that the teacher consultant model, when done effectively, was *very* time consuming. Conceivably, the required amount of consultant time might diminish as regular teachers acquired basic skills with handicapped students. However, a washout of this effect should be expected in optimal practice, since the constant flow of new teaching processes and materials assures new topics for continual inservice training. In the absence of keeping these professionals "mainstreamed" technically and directing their energies appropriately, consultants could run the risk of becoming more teacher supervisory than instructional advisory. Thus, any attempt to implement the teacher consultant model must assure both the ongoing skill development of the teacher consultant and adequate contact time with the regular teacher.

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Evaluating Mainstreaming Programs: Models, Caveats, Considerations, and Guidelines

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Abstract: A variety of practical and theoretical issues pertinent to the evaluation of mainstreaming programs are presented, including (a) a critique of large and small mainstreaming evaluation studies, with emphasis upon the adequacy of models and the insights they yield for improved evaluation designs; (b) problems and issues in the evaluation of educational treatments, including attention to the variables of instructional time, instructional integration, stating goals and objectives, assessing teacher willingness to accommodate the handicapped child, and monitoring child progress; (c) considerations related to appraising dependent measures (attitudes, achievement, acceptance, cost/effectiveness); and (d) a discussion of issues unique to the evaluation requirements of Public Law 94-142. The paper concludes with a presentation of guidelines for developing and appraising mainstream evaluation reports, and the observation that problems related to the evaluation of mainstreaming programs are not insurmountable.

> It is becoming increasingly unpopular to make assumptions about the validity of an educational program, or even an idea, without amassing objective, systematically collected data bearing directly upon its value. (Zimiles, 1968, p. 547)

PROGRAMS for mainstreaming are being developed and implemented at a rapid rate. There was a similar, but longer, earlier period in special education history when self contained special classes were being developed and implemented. Unfortunately, the development of self contained special classes (particularly for the educable mentally retarded) was not accompanied by appropriate attention to the evaluation of program effectiveness—determining the soundness of underlying assumptions or the means by which program validity could be assessed. When careful attention was given to evaluation concerns (Guskin & Spicker, 1968; Kirk, 1964), special educators discovered that the evaluation designs were flawed in many respects and hence not really adequate to provide reliable data on program effectiveness. Sampling was often inadequate, instrumentation was weak, and there was little knowledge of what

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actually transpired in the classroom. Teacher background was seldom described, and there was only rare recognition that special class students—even in a single classification such as the educable mentally retarded—could not be considered an educationally homogeneous group.

Educators now have the benefit of critiques of previous efficacy studies and know their shortcomings, many of which must be avoided in the evaluation of mainstreaming programs. Moreover, the Education for All Handicapped Children Act (P.L. 94-142, 1975) and legislation at the state level make evaluation of special education programs mandatory. It is important, therefore, as new special education programs are developed and before implementation becomes finalized, that a variety of evaluation considerations be examined.

The present article is not intended to be the definitive treatise on the evaluation of mainstream programs, but the authors do hope to bring before the reader a variety of considerations which, if taken into account, can improve evaluation efforts. The article begins with a discussion of models for evaluating mainstream programs. Emphasis is given to the adequacy of the models (and studies) and the insights they yield for improved evaluation designs. This is followed by problems and issues in the evaluation of educational treatments in mainstream settings. The third section presents considerations relevant to developing and assessing measures that might be used to evaluate program impact, followed by a treatment of issues unique to evaluation of Public Law 94-142. Finally, a number of general considerations and a set of guidelines for developing or assessing mainstreaming evaluation activities are given.

Models for Evaluating Mainstreaming Programs

Perhaps the best place to begin a critical examination of the evaluation of mainstreaming programs is to ask whether these programs should be evaluated differently than any other educational or social program. To make this judgment requires both a clear view of what mainstreaming is and an understanding of common approaches to evaluation.

There are at least three broad concerns behind the mainstreaming movement: the removal of labels, desegregation, and more effective programing (Dunn, 1968). Some (e.g., Kaufman, Gottlieb, Agard, & Kukic, 1975) have attempted to incorporate these as well as other concerns into a comprehensive definition of the term *mainstreaming*. For purposes of further discussion, mainstreaming programs here will refer to programs that provide more instruction for more handicapped children in regular classes than previously. Further, the major intent of this change is to reduce the presumed stigma of labeling, to reduce the presumed social isolation, and, it is hoped, to increase the effectiveness of educational programing for handicapped children. It is essential, then, that models for evaluating mainstreaming programs incorporate these key features of the mainstreaming treatment and its anticipated outcomes.

General Strategies of Educational Program Evaluation

The general strategies that have been employed in educational program evaluation can be divided roughly into field research models and decision making models.

Field research models. Field research methods can be further subdivided into experimental and nonexperimental (or *ex post facto*) approaches. The former uses the model of the psychological experiment. A good illustration in the field of special education is the Illinois study of the efficacy of special classes for the educable mentally retarded (Goldstein, Moss, & Jordan, 1965). Children screened on IQ tests were randomly assigned to first grade or to special classes, and testing was carried out over a three year period to compare intellectual, academic, and nonacademic skills of the children in the two conditions.

An excellent example of evaluation using nonexperimental methods is the Equality of Educational Opportunity study carried out by Coleman and his colleagues (1966) to assess school desegregation effects. This large scale investigation used field survey and demographic methods drawn largely from sociology, along with verbal tests on children and teachers. Racial and socioeconomic status distributions in classes and schools were examined, as were the correlations of these and many other variables with the school achievement of children.

Within their own fields, each of these stud-

ies has stood out as far more significant and better methodologically than prior work. Nevertheless, they each have been seriously taken to task for inadequacies of sampling, data analysis, and interpretation of findings.

Decision making models. In contrast with those studies that evolved out of more traditional psychological and sociological research methods, the field of educational evaluation began in the 1960's to use terminology and methods derived from business and behavioral psychology in response to demands for accountability as a part of federal funding for new educational programs. The terminology included process and product evaluation (or the more elaborate Stufflebeam, 1971, CIPP model, which assesses context and input as well as process and product), formative and summative evaluation, and discrepancy evaluation. The distinctive feature of these evaluation approaches is that they are concerned with providing information for decision making and often focus on specification of objectives, on providing feedback during the process of program development, and on describing the way in which programs have actually been implemented, as well as providing objective data on outcomes. Within the field of special education, these approaches have tended to be used in product (materials) evaluation (Thiagarajan, Semmel, & Semmel, 1974) and in descriptions of competency based teacher education programs (Semmel, Semmel, & Morrisey, 1976), though not to our knowledge in any major independent attempts at program evaluation.

Mainstreaming Evaluation Studies

The published or publicized evaluations of mainstreaming fall into two broad classes: large scale studies, involving many schools or school districts, and small scale studies, typically carried out in a single school or in a few classrooms.

Large scale studies. The large scale studies are illustrated by Project PRIME, carried out in Texas (Kaufman, Agard, & Semmel, book in preparation) and the California educable mentally retarded decertification study (Meyers, MacMillan, & Yoshida, 1975a). In addition to the large sample of schools employed in both studies, PRIME is distinctive for its collection of process data (i.e., systematic observation of teacher-pupil interaction) in every regular classroom in which handicapped children participated, in addition to an enormous number of input and output measures on all the teachers and children involved.

The California study was more modest, limiting itself to a more restricted number of input and outcome measures. These measures were selected for relevance to the objectives of the decertification procedures: reducing the racial and ethnic imbalance in special education and improving the achievement and adjustment of the previously labeled children.

Both large scale studies incorporated nonhandicapped regular class and handicapped special class comparison groups to help clarify the interpretation of their findings on "handicapped" children integrated into regular classes. However, in both studies, the special class group is not strictly comparable to the integrated group. Both studies also have in common a limited mode of conceptualization prior to data collection, primarily a specification of relevant variables rather than an attempt to conceptualize how the variables might operate (and interact) to affect outcomes. Both, and particularly PRIME, depend on extensive data analysis to unravel relationships. Both are limited in the availability of data prior to instituting program change. Yet, these studies provide—or are about to provide—more information on handicapped children in regular classes than has been accumulated in all previous research and evaluation on the topic.

Smaller investigations. In contrast with these extensive studies, a number of smaller investigations have been carried out in single schools. The work of Gottlieb and his colleagues (Budoff & Gottlieb, 1976; Goodman, Gottlieb, & Harrison, 1972; Gottlieb & Budoff, 1973; Gottlieb, Gampel, & Budoff, 1975) provides a good illustration of what can be done in such situations. Although limited in sample size, they were able to arrange in at least one study that children be randomly assigned to integrated settings, and they were able to collect measures before and after integration in another case. They collected data on achievement, motivation, cognitive style, sociometric status, and observations of classroom peer interaction. Data analysis consisted largely of comparisons among groups. Among the more

interesting findings was the fact that the observation and sociometric data provided opposite results: Observed interaction of educable mentally retarded children with peers was more positive in regular classes than in special classes, but peer acceptance of educable mentally retarded children by nonretarded children was less favorable when the children were integrated into regular classes. These latter data are consistent with the data that have thus far appeared in the large scale studies. Integrated handicapped children appear to adapt socially about as well as their nonhandicapped peers. Yet their popularity tends to be considerably below average.

Critique of Studies and Alternative Evaluation Strategies

Although the information from the mainstreaming studies has been well received and further findings are eagerly awaited, it is important to recognize their limitations when planning further evaluation studies. Perhaps the most significant weakness was the relative inattention to theory prior to collecting data. A disproportionate amount of time was spent in instrumentation, data analysis, and interpretation subsequent to data collection. Conceptualization appeared to be limited to a specification of relevant variables. Simple linear, additive relationships tended to be assumed. The complexities of relationships among variables were left to the computer to sort out.

What alternatives are there to these strategies? First of all, what theoretical formulations have promise? While it is certain that a number of promising formulations will derive from the report on Project PRIME, these conceptualizations will tend to be limited by the type of data to be interpreted. Instead, the authors would like to suggest frameworks uninfluenced by existing evaluation studies. One promising set of hypotheses has been proposed by Richer (1976). He was attempting to clarify what is called reference group theory in sociology by applying it to ability grouping. Given the enormous and conflicting body of literature on ability grouping (of which special classes and mainstreaming are special cases), any theoretical formulation that can provide some clarification of it should be promising for evaluating mainstreaming programs. A reference group is essentially any group, actual or imagined, that influences one's behavior. The influence is cognitive; that is, by the individual thinking of the group, the group influences the individual. There are two types of reference groups, normative and comparative. The normative reference group serves "as a source for [one's own] norms, attitudes, and values, while a comparative group is one serving as a standard of comparison for self appraisal" (Kelley, 1952, p.412). Richer saw much of the debate over the advantages of ability grouping as revolving around whether for a low ability child in a heterogeneous class, the higher ability group will result in the low ability child comparing himself with the others and perceiving himself as relatively deprived or responding to the higher ability group's norms and emulating them. The debate certainly sounds familiar, though with a different terminology.

Richer suggested that the ambiguity of findings on ability grouping is the result of a lack of identification of the classroom conditions most likely to influence reference group processes. For such processes to occur, the reference group must be salient, that is, visible and meaningful or prominent. This might be more likely to occur if teachers group the class into a small number of ability groupings and/or if the class is small. Even though visible, however, Richer pointed out that the high ability group may not be a meaningful reference group if it differs in too many other ways from the low ability child. However, meaningfulness of ability grouping may be increased if the teacher rewards the groups differentially.

Given the salience of the higher ability group, the choice of whether the group is taken as a comparative or normative reference group was seen by Richer to depend on the perceived possibility of upward mobility. The higher the perceived upward mobility, the greater the likelihood of the high ability group being taken as a normative reference group rather than a comparative one. The perception of mobility is least likely if grouping is by IQ rather than by achievement in specific subjects. "The more subgroups of different status a person belongs to, the more likely that low status in one group is rendered relatively unimportant" (Richer, 1976, p.67).

This conceptualization raises a number of questions relevant to the assessment of mainstreaming programs: How salient are the special class, the resource room, and the regu-

lar class to the integrated child? How salient are subgroups within the regular class? How great is the association between ethnic background and grouping? Does the integrated child perceive that he or she becomes a real member of this higher ability group?

Aside from such general social-psychological theoretical formulations, a number of more limited conceptualizations could be of value. Certain critical factors tend to be ignored. Thus the period of time in regular and special classes is rarely taken into account. For example, should it be assumed that things change immediately upon entry into the regular class and remain constant over months or years, or is there adaptation? Perhaps the opposite occurs: Initial success is followed by depressed performance and self acceptance. Even when important factors are identified, overly simplified relationships are assumed. Curvilinear relationships need to be considered. For example, increasing the amount of supportive services received by a regular teacher may not continue to have favorable impact but may instead reach an optimal level after which it interferes with achievement and acceptance. Perhaps too much intrusion of special efforts begins to break up the structured efforts of the regular program and tends to set the child apart from others.

Finally, there is a need to deal more fully with the complexities of the individual case—the individual child, the individual school—perhaps using the qualitative methods of the anthropologist (e.g., Edgerton, 1975) or perhaps the quantitative methods of behaviorists (e.g., Herson & Barlow, 1976). Methods must then be developed for accumulating these complex data over individual cases in such a way that the resulting information is usable for decision making at the program level (e.g., Glass, 1976). It is necessary to know whether, overall, the program is relatively effective, but it is also necessary to know whether certain kinds of programs are more effective for certain kinds of children and school systems than for others.

To conclude, one of the greatest needs in future approaches to the evaluation of mainstreaming programs is to provide an adequate conceptualization of the processes involved. Both theory and methodology need to avoid the oversimplification of traditional educational research. The methodology needs to incorporate qualitative as well as quantitative procedures and intensive analysis of individual cases as well as methods for accumulating information over cases, school systems, and studies. Perhaps the best place to begin conceptualization and the development of methodology is with analyses of the nature of the mainstreaming treatment.

Evaluating Educational Treatments in Mainstreamed Settings

Instructional Time

The main thrust of mainstreamed education to date has concerned class placement. That is, mainstreaming has been defined by schools in terms of the amount of time a handicapped child spends in regular classes, for academic and/or nonacademic purposes. Although few data are available regarding the benefits that accrue to handicapped children who are placed in regular classes for differing amounts of time, the data that do exist suggest that amount of time integrated per se has relatively little impact on the way other children feel about them (Gottlieb, 1975; Gottlieb & Baker, 1975). That is, children who are mainstreamed for approximately 10% of the school day do not differ significantly in social status from children who are mainstreamed for approximately 90% of the school day.

One reason for such apparently disappointing results could be that these studies did not consider the quality of educational treatments that were provided to the handicapped children when they were in the regular classes. It is to this theme—the manner in which handicapped children are instructionally integrated and the way that instructional integration is to be evaluated by teachers—that we now turn. The discussion will not focus on formal aspects of evaluating mainstreaming programs which necessitate appropriate statistical analyses but rather on more informal concerns which usually emerge when school personnel undertake self study or self evaluation of their school's programs.

Instructional Integration

Kaufman et al. (1975) wrote that instructional integration concerns the extent to which the handicapped child shares in the instructional

environment of the regular class. In order for the handicapped child to share in the instruction that is offered in the regular class, at least three conditions must be satisfied. First, the handicapped child's educational needs must be compatible with the instruction that is offered to the nonhandicapped children. An illustration of a lack of compatibility is the situation where a handicapped child is assigned art work while classmates are engaged in reading lessons. The second condition that must exist for instructional integration to occur is for the regular class teacher to be willing to modify instructional practices to accommodate a child whose learning style or ability may be seriously discrepant from the remaining students in the class. The third facet of instructional integration is the need for a coordinated effort between the regular classroom teacher and the supportive personnel available in the school or district.

Educational treatments that are delivered under the rubric of mainstreamed education can be evaluated, then, with regard to the extent that they achieve the conditions just presented under the heading of instructional integration. Each element of instructional integration can then be considered in relation to the quality of the educational treatment that it was intended to achieve, and indexes regarding its successful implementation can be suggested.

Stating Goals and Objectives

Historically, one of the criticisms that has been levied against special education research has been its failure to specify the nature of the educational program that handicapped children receive. Although this criticism was originally voiced by Kirk (1964) in his comments regarding special classes, it is equally applicable with regard to handicapped children in mainstreamed settings. Before any evaluation of educational programs in mainstreamed settings is possible, there must be a clear statement about the academic goals and objectives that the handicapped child is expected to attain in the regular classroom. In the absence of such a statement there is little reason to expect that a meaningful educational program will be developed. Often, the primary goal in placing handicapped children in a regular class is not for academic purposes but to promote their social behavior by exposing them to appropriate peer models and/or by providing them with competitive situations that they ultimately must experience if they are to succeed as adults. While these are laudable goals for a handicapped child, they should be recognized for what they are: social goals, not academic goals. There is little reason to expect handicapped children to improve their academic competence if the primary purpose for mainstreaming them is to promote social competence. To summarize this point, an evaluation of mainstreamed educational treatments must begin by obtaining a clear statement on whether or not the purpose of placing the handicapped child in the regular class is to improve academic performance.

If it is established that a handicapped child is placed in a regular class for a specific academic purpose, the logical question that must be asked is whether the ongoing lessons are consonant with the stated goals. What active steps is the regular class teacher taking to facilitate the child's likelihood of accomplishing the goals that were established on the child's behalf? There is no simple answer to this question, because the material the teacher offers the handicapped child, or any child for that matter, depends on the type of classroom the teacher manages. However, although no precise data are available, data that do exist suggest that few regular teachers are taking the time to provide the handicapped child with special materials or teaching methods. Agard (1975), in a study of several hundred regular classrooms, found that approximately 75% of regular class instruction occurred in large groups with the teacher standing front and center. Under such circumstances there is only a remote likelihood that the regular class teacher is providing anything "special" to the mainstreamed handicapped child. Therefore, a second consideration in evaluating programs for handicapped children is to obtain descriptive information regarding the content of academic activity that they are engaged in while in the regular classroom.

Assessing Teacher Willingness to Accommodate the Handicapped Child

The content that a handicapped child participates in is dictated in large part by the regular class teacher's willingness to tailor the class lessons to accommodate the individual needs of a handicapped child. This brings us to the

second major aspect of instructional integration: willingness to modify instruction to accommodate the handicapped child.

Whether or not a teacher will provide an appropriate educational program for a handicapped child depends on a number of factors including the teacher's self perceived ability to teach a particular child, the extent to which the handicapped child deviates from the modal performance level of the children in the class, and the teacher's attitude toward that child.

Research evidence does exist to show that the overwhelming majority of regular class teachers feel that they are ill equipped to deal with handicapped children. As an example, Gickling and Theobold (1975) found that 85% of the regular education teachers they queried felt they lacked the necessary skills to teach exceptional children. These findings are consonant with Agard's (1975), who found that the majority of regular class teachers stood front and center and lectured to the class as a whole. In other words, these teachers were not doing anything extraordinary to accommodate the needs of exceptional children in their classes. The picture that develops regarding regular class teacher activity vis-à-vis exceptional children also conforms to data from more traditional attitude studies where regular class teachers' attitudes toward retarded children were negative and became increasingly more negative after a year's experience teaching them. This was shown, for instance, in the study conducted by Shotel, Iano, and McGettigan (1972). Overall, these studies indicate that regular class teachers harbor generally negative attitudes, and their instructional practices are not geared toward accommodating children whose ability levels and needs are widely discrepant from those of the majority of pupils in their classes. Therefore, a second point to consider when evaluating educational treatments is to identify precisely what the teacher is doing to tailor instructional strategies to accommodate handicapped children. Here, too, straightforward descriptive data will suffice.

Until now, the discussion has focused exclusively on the regular class teacher, but clearly this is only half the picture. It is obvious that an educational program for mainstreamed handicapped children requires the cooperation of regular and special education teachers. A substantial portion of handicapped children's academic instruction is obtained in resource rooms, which are most often staffed by trained special education teachers. One index of the effectiveness of an academic program for mainstreamed handicapped children is the extent to which regular and special class teachers interface and share responsibility for the child's educational program. Ideally, an articulated program involving coordination between regular and special class teachers evolves from regularly scheduled meetings in which the teachers discuss materials, methods that have been appropriate for the child, and, in general, the child's level of progress in the regular classroom. All too often the coordination between regular and special class teachers is conducted on a catch-as-catch-can basis, with the special education teacher discussing a particular child over lunch, sometimes; during a break, sometimes; or after school, sometimes. It is difficult to imagine an effective, well articulated program being developed from such haphazard meetings. This is less of a problem when the mainstreaming concept involves having the special education teacher assist the handicapped child directly in the regular classroom rather than in the resource room.

Monitoring Child Progress

Yet another concern when evaluating the effectiveness of mainstreamed education for a particular child is the steps that are routinely taken to monitor the child's progress. Once a program has been established for a child, how long will it be implemented before someone decides whether it is an appropriate program for that child? It is unreasonable to expect that a single educational plan is likely to be appropriate for all children all the time. But when is this decision made? And by whom? Evaluations of mainstreamed programs should consider whether there are any mechanisms built into the system to decide whether the educational treatment is proving effective, by whatever criteria are valued by that school system.

The issue of what is being taught to a handicapped child is far more important than where it is being taught. A review of the literature on the effects of mainstreamed versus nonmainstreamed education on the academic performance of mentally retarded children suggests that there is little if any difference in the achievement gains made by these children regardless of their placement. There is tenta-

tive evidence, however, that instructional strategies can affect achievement of retarded children, as was demonstrated by Haring and Krug (1975). Unfortunately, despite the voluminous amount of prose on mainstreaming that has appeared in the published literature, pitifully few writings have discussed the merits of various approaches to mainstreaming while also presenting relevant data to support their assertions. In fact, empirical studies of mainstreaming, especially with regard to its impact on the academic achievement of handicapped children, have been few and far between. Federal legislation has mandated that handicapped children are to be educated in the least restrictive environment to the maximum extent feasible. It is difficult to imagine how the maximum extent feasible is going to be determined in the absence of empirical verification that the practices subsumed under the general rubric of mainstreaming are worthwhile insofar as they have a positive effect on handicapped children's educational performance. Thus, while it is critical that program evaluation provide data describing the type of treatment implemented, it is also essential that data be collected describing the consequence of the treatment.

Dependent Measures

If the true impact of mainstreaming is to be known, information will be needed from a variety of sources. Among more obvious data needs are those on student achievement and on attitudes of adminstrators, teachers, parents, and pupils. Data on school attendance rates, student adjustment and acceptance, and program cost-effectiveness will be needed as well. Ideally, such information should be obtained on nonmainstreamed pupils, since there has been concern that mainstreaming may impact negatively upon the adjustment and achievement of the regular class pupil. Some, including students, teachers, parents, and administrators, believe that the time teachers take to provide instruction to the mainstreamed student makes the teacher less accessible to regular students. Moreover, the classroom environment is thought to be less stimulating and demanding because of the presence of such students. Convincing data will need to be accumulated on such matters to allay the misgivings noted.

A description of certain dependent measures that ought to be included in mainstream evaluation reports is presented in Table 1, which also includes the measures' means of assessment.

There are a number of factors to be considered in using the measures described. First, concerning attitudinal measures, no scales of known validity and reliability have been developed for use with mainstreamed populations. There are a number of problems

TABLE 1

Dependent Measures

Measure	*Method of assessment*
Student achievement	Standardized tests, locally constructed tests
Attitudes of administrators, teachers, parents,	Attitude questionnaires, interviews, observations
Student adjustment	Observations, inventories, and questionnaires
Student acceptance	Sociometric methods, observations inventories, and questionnaires
Cost/effectiveness	Examination of expenditures in relationship to specified alternative objectives
School attendance	Attendance rolls

attendant to the use of such instruments, including the establishment of their validity.

A special problem is developing scales that are not so transparent that their purposes are easily detected, with the consequence that the respondents may manipulate their responses and thus distort the nature of their true attitudes. There are, however, problems that precede actual scale development and use. These concern the political realm and respondent protection from invasion of privacy. In the latter case, the rights of subjects to their own minds and thoughts may prohibit use of conventional attitudinal scales with students or with teachers and others (e.g., parents and school administrators). These same potential problems may impede the collection of data on student adjustment and social acceptance; the requirement that students reveal their likes and dislikes for their classmates will be unacceptable to many school administrators, parents, teachers, and the students themselves.

The requirement that students (and others) be protected from undue invasion of privacy will make it difficult to obtain some of the kinds of data needed for comprehensive evaluation of mainstream programs. Little thought appears to have been given to alternative nonreactive methods of accumulating data on attitudes, acceptance, and adjustment, but the use of observational schemes and unobtrusive methods may prove beneficial and is recommended.

There are also special considerations in the use of achievement tests. The advantages of standardized achievement tests are well known: They have been developed on large numbers of children; they possess adequate reliability for group assessment; and they cover the range of objectives often found in many school programs. On the other hand, they have not typically included, in their standardization population, children who are candidates for mainstreaming. A consequence of this neglect is that attention may not have been given to the phrasing of questions, to format, or to other concerns that might make the test more useful for application to the mainstreamed student. Moreover, since most standarized achievement tests are designed to provide information about the performance of students in the vast middle range, the content is probably not valid or reliable for students outside that range.

Fortunately, the above problems are not as grave as was once believed to be the case. Yoshida (1976) and his associates (Meyers, MacMillan, & Yoshida, 1975a; Nystrom, Yoshida, Meyers, & MacMillan, 1977) have explored a variety of techniques for using conventional standardized tests with populations of exceptional children, including educable mentally retarded children returned to regular classes (Yoshida, 1976) and educationally handicapped children (Nystrom et al., 1977). The authors of these studies have demonstrated that through use of procedures such as out-of-level testing, in which standardized tests more appropriate to the student's level of functioning are administered rather than those based on chronological age or grade placement, data on the mainstreamed child's level of achievement can be obtained. Thus, a mainstreamed child in the fifth grade may be given an achievement test appropriate for students in the second or third grade, the decision about appropriate level being made on the basis of teacher judgment and/or the student's past academic performance. The question that arises is whether or not the psychometric properties of the tests (e.g., reliability, validity, and the percentage of respondents scoring above chance levels) are affected by such testing procedures. Yoshida's (1976) work with educable mentally retarded students returned to regular classes indicated that these test properties are not affected at all, indicating that reliable information on student achievement may be obtained using the out-of-level procedure. It should be obvious that necessity for use of the out-of-level procedure suggests, *ipso facto*, that the mainstreamed child probably is not approximating grade level achievement expectations. If the child were, unmodified tests could be used.

Addressing similar concerns (i.e., modifying tests for use with the handicapped), Nystrom et al. (1977) investigated the effects of group size (testing in groups of two, four, or eight students) and group behavioral characteristics (behavior in testing situation) on the achievement scores of mainstreamed educationally handicapped students. They found no differences in test performance or frequency of disruptive behavior by group size under the experimental testing conditions as contrasted with the report that 63% of the students were unable to complete the testing in their regular classrooms. The small group method of ad-

ministering achievement tests to educationally handicapped children is clearly the method of choice.

On the basis of their work with the administration of the Metropolitan Achievement Test (MAT) to a large population of decertified educable mentally retarded children, Meyers et al. (1975a) evolved a series of quite innovative procedures designed to

> maximize motivation and test-wiseness of the examinees without sacrificing the standardization of the test proper. For example, students were told that they were not being evaluated for placement in any special program, were asked to respond to all questions even if they had only partial comprehension of specific questions, responded only in test booklets to eliminate errors due to unfamiliarity with separate answer sheets, were given extended rest periods to counter fatigue and frustration caused by a novel situation. Within the test proper, no suggested procedure was modified; time limits for completing the subtests were followed strictly, test batteries were administered whenever possible on separate days, especially at the lower levels of the MAT. (p. 6)

Although experimental, the work of Meyers et al. has great promise for adapting standardized achievement tests with mainstreamed and other populations of handicapped children.

Racial and socioeconomic bias. The mainstream program evaluator also needs to be sensitive to the questions of potential racial and socioeconomic bias in cognitive tests. These questions revert, ultimately, to whether the tests are valid for the population(s) to which they are applied. Hilliard (1975) presented a list of "implicit assumptions" made by test users as a basis upon which tests are interpreted. Those relevant to present concerns include the following: (a) Each child understands the question being asked in the same way. (b) A child's cognitive function is observable only through the Anglo language and the Anglo value framework based upon Anglo experiences. (c) All people have the same experiences; therefore the same questions can be asked of everyone. A corollary assumption is: A question means the same thing in all environments. (d) A label or name for a cognitive component is a precise description of the whole component (Hilliard, 1975, p. 19). Obviously, these assumptions cannot be accepted for children from greatly different racial and socioeconomic backgrounds.

Evaluation within the Context of Public Law 94-142

Evaluation is a key feature of Public Law 94-142, the Education for All Handicapped Children Act. Section 618 of the Act is devoted specifically to evaluation. In this section the Commissioner of Education is enjoined to "measure and evaluate the impact of the program authorized . . .and the effectiveness of State efforts to assure the free appropriate public education of all handicapped children" (p. 83).

Many considerations relevant to evaluation of Public Law 94-142 have been given in preceding pages, particularly those related to the Act's requirement that the Commissioner of Education provide for the evaluation of programs and projects by developing effective methods and procedures of evaluation, the testing and validation of the methods and procedures, and the conduct of actual evaluation studies designed to test the effectiveness of the programs and projects. However, two of the specific major evaluation activities specified by the Act deserve special attention: (a) the requirement that the numbers of children being served and not served (The Numbers Game) be reported annually and (b) the requirement "that the Commissioner shall conduct a statistically valid survey for assessing the effectiveness of individualized education programs" (p.65).

The Numbers Game

Public Law 94-142 requires federal, state, and district officials to provide data on the number of children served; that is, number of children mainstreamed, number removed from self contained special classes, decrease in the number of minority group children in self contained special classes, and so forth. While this information has its purposes and is among the easiest to obtain, it is also among the most useless, primarily because of issues that it does not address, for example, the appropriateness of the alternative educational placement and resulting improvement (or lack of it) in social adjustment, academic achievement, and other outcomes presumed to accompany mainstream placement. While various agencies will be re-

quired to provide such data in connection with the requirements of Public Law 94-142, deeper explorations of instructional practices, as suggested in earlier sections of this article, must be undertaken.

Evaluating the Individualized Education Program Concept

Evaluating the appropriateness of individualized education programs (IEP's) will be among the knottiest problems that evaluators of mainstream programs will face. This is true for programs designed to facilitate academic achievement, social growth and development, or both. Although there has been progress (Yoshida, 1976), questions about the availability of appropriate measures for assessing the accomplishments of students in special populations have not been entirely resolved (Jones, 1973, 1976).

The most critical problem, however, concerns the assumption that valid information is available on the growth and development of academic and social abilities of special populations, that something is known about the conditions under which such growth and development take place or about the upper level of growth of various kinds of achievement for different populations of mainstreamable and/or handicapped children. Regrettably, no such knowledge exists. It cannot be said with any certainty how much growth change can be expected to occur in students with various profiles taught by method A or by method B, the answer to which is critical to assessing the adequacy of individualized education programs.

Further, Morrisey and Safer (1977), in addressing problems related to the evaluation of individualized education programs, noted:

> To measure program/IEP's effectiveness in terms of pupil change indicators (e.g. achievement) it would be necessary to confirm that what was prescribed was implemented, and that the variance which was observed/measured could be accounted for in terms of the implementation. This would be a particularly difficult change since IEP related activities will have varying correspondence to elements of the prescribed educational plan and take up varying amounts of the instructional day. These problems, coupled with the inherent difficulties in pre-test/post-test methods of measuring/recording pupil performance, suggest that it may be methodologically difficult to assess IEP effectiveness in this way. Moreover, the precision and frequency of documentation that would be required to collect reliable and valid data, make the use of such methods prohibitive. Therefore it may be most desirable to consider multiple and varied measures of effectiveness—cost, resources, satisfaction, and pupil measures. At any rate, determining appropriate measures of effectiveness will be an initial and difficult task. (pp. 35-36)

It is true, but not enough, to say that more research is needed. Students are in classrooms now, and individualized education programs must be developed for them now. How, then, is evaluation of the effectiveness of IEP's to be made? The authors believe, given the current state of knowledge about relationships between instructional achievements and academic and social growth in populations of exceptional children, that IEP's can be evaluated only for their content appropriateness (face validity); that is, the assessment of experienced teachers about what is likely to work and what is not likely to work (with sensitivity to the need to monitor instructional activities constantly and to modify programs when changes are appropriate) seems to reflect the state of the art with respect to the evaluation of IEP's. It would be helpful if programs of research and development could be carried on alongside the ongoing instructional activity, but often this will not be possible, primarily because of limited personnel and fiscal resources. Some research and evaluation activity will be conducted, to be sure, but there would also seem to be great value in having a forum in which teachers and program developers could present the results of their experiences with various kinds of mainstream models and procedures, including their data and hunches about what seems to work and what does not.

Although conventional wisdom suggests that rigorous evaluation designs are necessary to determine the effectiveness of educational programs, teachers can play a critically important role in the evaluation of mainstreaming. It is the teachers, not the evaluators, who are in constant contact with the children, materials, and daily problems that arise. Whether or not mainstreaming will prove effective rests primarily in the hands of the teachers. The educational treatments they provide must at least be evaluated by them, however informally. There is nothing to be gained from ignoring this important source of information;

EVALUATION CONSIDERATIONS

1. Is the purpose of the evaluation described?
2. Is the reader given sufficient information to determine whether the evaluation is formative (i.e., for instructional improvement) or summative (i.e., a final program evaluation) or both?
3. Are the evaluation procedures and results clearly reported?
4. Is sufficient information provided to enable replication of the evaluation?
5. Are the evaluation procedures practical?
6. Is the intended audience specified?
7. Is there a description of the model(s) of mainstreaming employed, with sufficient data to permit an understanding of the kind of educational procedures followed?
8. Is information provided on the length of time that the mainstreaming model employed has been operational in the school(s) evaluated?
9. Is the number of hours of instructional integration given?
10. Are data given on school district location and size and on school and community characteristics?
11. Are the subjects, including regular classmates, described adequately (i.e., age, grade, sex, previous educational history, socioeconomic class, racial group membership)?
12. Are the means by which students are selected for mainstreaming described?
13. Is there information on whether the mainstreamed pupils were formerly enrolled in self contained special classes?
14. Is length of time the children were mainstreamed prior to evaluation activities given?
15. Are sample sizes adequate?
16. Was there reasonable sample stability during the evaluation period?
17. Is information on the experiential background of the teacher(s) provided?
18. Are evaluation instruments described?
19. Do the instruments possess satisfactory validity and reliability for the population of mainstreamed students involved in the evaluation?
20. Are statistical procedures appropriate?
21. Is attention given to the appropriateness of placement?
22. Is there assessment of instructional quality?
23. Is information provided on student achievement?
24. Is information provided on the attitudes of students, teachers, administrators, and parents?
25. Is information provided on student adjustment?
26. Is information provided on the social acceptance of the mainstreamed student?
27. Are data on the attendance rates of mainstreamed students presented?
28. Are cost-effectiveness data provided?
29. Is attention given to program impact on nonmainstreamed students?
30. Are political realities described and taken into account in program planning and program evaluation?
31. Are names and addresses of program planners and evaluators provided so that additional inquiries can be made?

FIGURE 1. Considerations for preparing and assessing reports of mainstream program evaluation.

moreover, teacher experiences and insights are likely to inform research and evaluation activities in a way that will make them much more useful than is presently the case.

Guidelines for Preparing and Appraising Mainstream Evaluation Reports

Most of the information on the evaluation of mainstream programs comes from unpublished studies. There would seem to be a critical need for a set of guidelines by which such reports can be appraised. Ideally, such guidelines should be followed by individuals preparing mainstream evaluation reports as well. To the extent that common guidelines are followed, it will also become possible to accumulate information from a large number of separate evaluation activities.

Evaluations are conducted for many purposes. Some evaluations are conducted for local use only, and others are intended to be generalized widely. In presenting guidelines herein, the authors are assuming that the evaluator intends to communicate the procedures and results to an audience wider than those having intimate involvement with the project. If this is the objective, reporting may need to be fuller than would be the case for strictly in-house reports. Evaluators who do not wish to

provide complete data on populations, procedures, and so forth should keep their reports out of major dissemination channels (e.g., ERIC, *Exceptional Child Education Resources*, etc.) since partial and incomplete evaluation studies do more to confuse than to clarify.

It is obviously impossible to specify what ought to be included in each evaluation report, since report content will vary as a function of evaluation purposes and intended audience. Nevertheless, to give the reader a sense of the range of factors that ought to be considered in preparing or appraising mainstream evaluation reports, a fairly comprehensive set of evaluation guidelines for such work is presented in Figure 1. The authors recognize that the results of any single evaluation will rarely be reported in such detail.

Concluding Remarks

This article has attempted to present a variety of considerations related to the evaluation of mainstreaming programs, and to set forth guidelines for the preparation and appraisal of mainstreaming evaluation reports. It should be apparent from the foregoing analyses that problems related to the evaluation of mainstreaming programs are not insurmountable. By giving early attention to matters addressed here, many pitfalls characterizing previous special education evaluation efforts can be avoided, and it will become possible to use evaluative procedures to improve instructional practices and, in time, to know the effectiveness of mainstreaming efforts.

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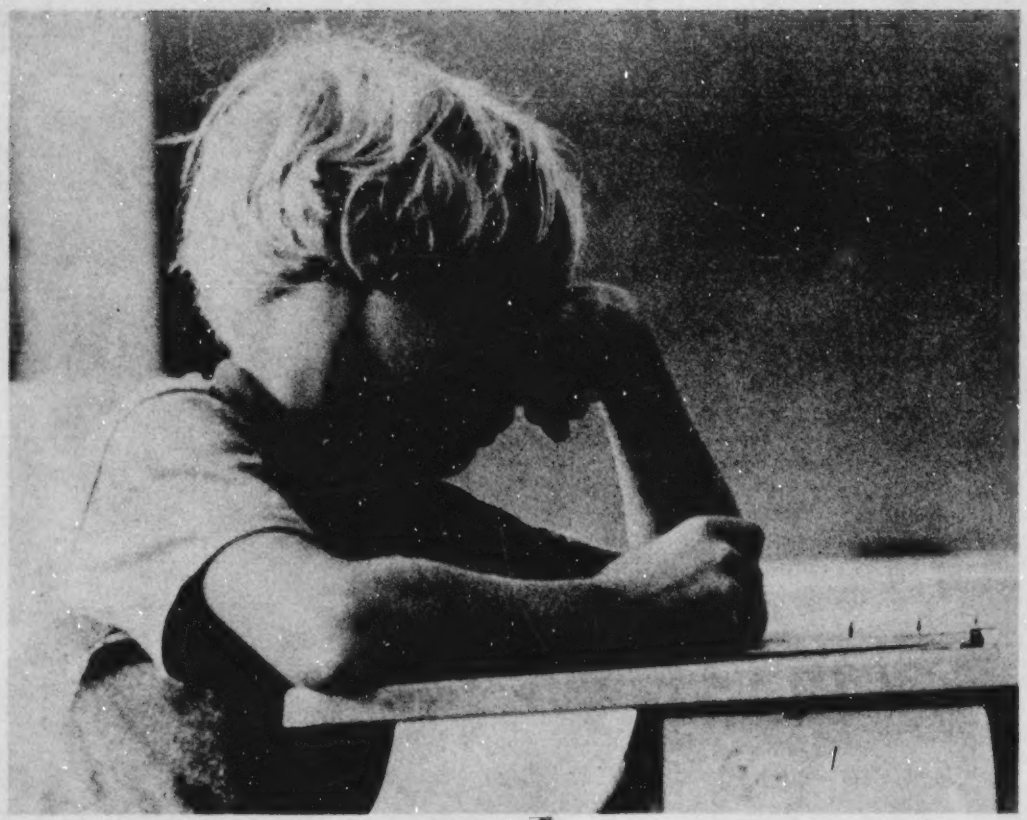
II. Training of Professionals

higher education's role in mainstreaming: an example

hugh s. mckenzie



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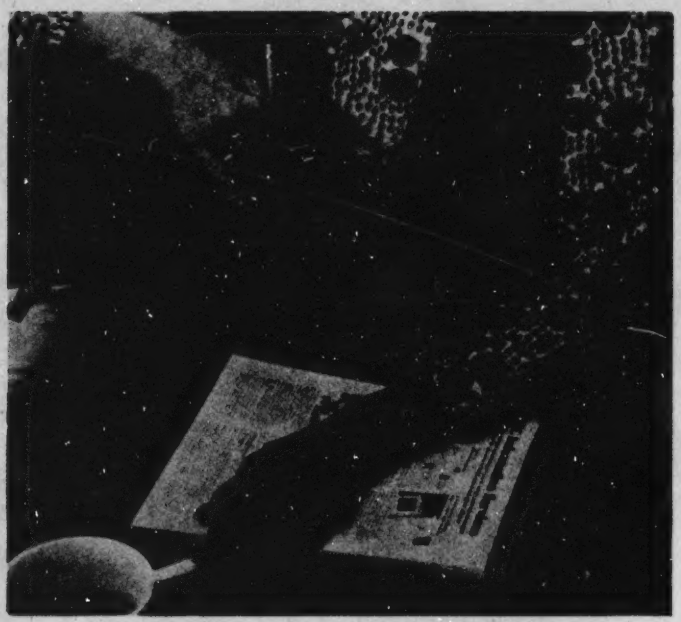

Key Ideas

- *. . . Higher education's role in mainstreaming is both challenging and rewarding.*
- *It is helpful to have school districts, their state department of education, and an institution of higher education working together to achieve mainstreaming.*
- *Without regular educators so enabled to provide successful mainstreamed special services, mainstreaming will be but a passing fad and our children will suffer.*
- *Key members of the community must have clearly communicated to them the rationale for mainstreaming, the benefits it will bring to all children and members of the community, and how it will be reasonably implemented in that community's schools.*
- *Mainstreaming is perhaps more subject to the quest for accountability than many other educational programs.*
- *Public schools and their state department of education have sufficient power and incentives to enlist the support of a teacher training institution in the cause of mainstreaming special education.*

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VERMONT'S MAINSTREAMING

□ The purposes of this chapter are first to describe those factors we in Vermont have found helpful in successfully achieving mainstreaming of children eligible for special education, and second to describe how one institution of higher education—the University of Vermont —has assisted in achieving mainstreaming. The chapter concludes with a summary of Vermont's progress to date in mainstreaming and with a general discussion of enlisting an institution of higher education's help in this exciting endeavor.

FOUR FACTORS HELPFUL IN MAINSTREAMING

□ Since 1967, Vermont has been working to achieve mainstreamed special education. Progress has been slow, but is is real and it continues. Four factors have been of continued help in achieving this progress.

School districts, their state department of education, and an institution of higher learning work together.

It is helpful to have school districts, their state department of education, and an institution of higher education working together to achieve mainstreaming. The school district may develop and implement mainstreamed special education on its own. If one or more individuals in a district are skilled in the exercise of power, brilliant in developing a school district's own teacher training program, and skilled in finding innovative ways to meet state department of education requirements, success in mainstreaming may eventually be achieved. It should be obvious, on the other hand, that neither the state department of education nor an institution of higher education can expect to successfully implement mainstreamed special education services on its own. Each must, at the very least, have the cooperation of local school districts. It is the school that must ultimately implement mainstreaming. It is the schools' teachers who will

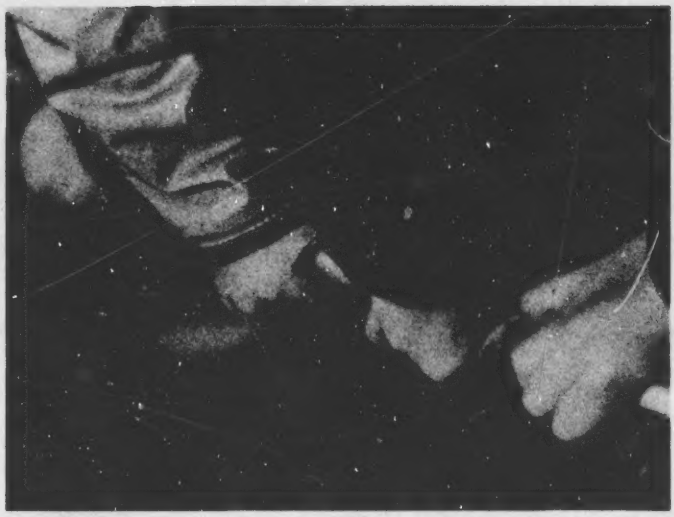
do the mainstreaming. It is the schools' administrators who will supervise and support the mainstream efforts. It is the schools' boards of directors and taxpayers who will provide necessary moral and financial support.

It is helpful to a school district in implementing mainstreamed special education to do so in cooperation with its state department of education. The state department of education can be instrumental in changing laws and policies so that state funding of special education facilitates rather than impedes mainstreaming, for example, funding is noncategorical and not tied solely to a special class approach.

A state department of education may also tap statewide funding sources which then can be allocated to mainstreaming efforts in the local schools. State departments of education typically provide technical assistance to the schools, and this assistance may be aimed at facilitating mainstreaming. State departments of education have access to a statewide power base, and thus may not only provide added funds for mainstreaming but may also facilitate statewide commitment to mainstreaming.

Institutions of higher education can be helpful to state departments of education and local school districts by training special and regular educators who have positive attitudes toward, and skills in, mainstreaming. An historical function of higher education is the collection and development of knowledge. This function can be directed toward collecting and developing knowledge on how to achieve successful mainstreaming.

Higher education also has access to funding resources different from those available to a local school district or a state department of education, and these funds may be applied to the implementation of mainstreaming in local schools.



It is helpful if regular educators have the skills, attitudes, and knowledge to successfully achieve mainstreaming. In general, it is clear that regular class teachers do not have the skills, attitudes, and knowledge required to accomodate the wide range of individual differences that mainstreaming involves. In fact, those of us in special education have long indicated to regular class teachers that they are not prepared to accommodate children eligible for special education by our removing these children from the teachers' classes. That is unfortunate, but we have now found a better way to provide special education for many youngsters. Thus it is incumbent upon special educators to help regular classroom teachers understand this shift in some special education services to the mainstream and to provide these teachers with the skills, attitudes, knowledge, materials, equipment, and supporting personnel needed to be successful in mainstreaming youngsters eligible for special education.

It is helpful if regular educators have the skills, attitudes, and knowledge to successfully achieve mainstreaming.

Similarly, school administrators and other regular education personnel must be provided with the training and resources vital to successful mainstreaming. Without regular educators so enabled to provide successful mainstreaming, mainstreaming will be but a passing fad and our children will suffer.

It is helpful to have community understanding and support of mainstreaming.. Schools and their programs do not operate in isolation. They are a public part of a community and thus affected by the politics of a community. Whether or not a school's programs are good and moral and just, they can be eliminated by the power politics of a community. They may also be supported and enhanced if these programs are acceptable to the community's political powers. Thus key members of the community must have clearly communicated to them the rationale for mainstreaming, the benefits it will

It is helpful to have community understanding and support of mainstreaming.

bring to all children and other members of the community, and how it will be reasonably implemented in that community's schools.

This communication to community members must be continuous and clear in specifying the benefits that mainstreaming will bring to all. This communication is a delicate exercise to insure that the good that mainstreaming can achieve will be realized and maintained. Since it is helpful to have the state department cooperating in implementing mainstreaming, the statewide community must also be considered in communicating rationale, benefits, and implementation steps of mainstreaming.

It is helpful to have an accountability system for mainstreamed special education. Mainstreaming is perhaps more subject to the quest for accountability than many other educational programs, for many wonder if children eligible for special education can learn desirable educational outcomes in the regular classroom: Can these children be happy learning with their more fortunate peers? Will these fortunate peers continue their learning of desired educational outcomes with children eligible for special education in their classes?

It is helpful to have an accountability system for mainstreamed special education.

Thus, it is most helpful in implementing mainstreaming to have an accountability system that addresses itself to the above questions. This accountability system should include procedures and criteria for:

1. Determining who is eligible for mainstreamed special education services.
2. Evaluating the results of the mainstreamed special education services in terms of the learning of desired educational outcomes, not only by the children eligible for special education, but also by their peers.
3. Determining when children may profitably exit from the mainstreamed special education services. With such an accountability system and its dissemination, mainstreaming will be facilitated.

HOW ONE INSTITUTION OF HIGHER EDUCATION HAS TRIED TO HELP MAINSTREAMING

A faculty member, state director, and staff member plan a system for providing special education services in regular classrooms.

□ The University of Vermont has been involved in Vermont's mainstreaming efforts since these were begun. In 1967, the author of this chapter, a faculty member of the University, began planning with the State Director of Special Education and one of her staff, a system for providing special education to certain children in regular classrooms. Once they developed a tentative plan, it was reviewed by the entire staff of the Division of Special Educational and Pupil Personnel Services of the Vermont State Department of Education. The many helpful suggestions that came from this review were incorporated into a revised plan. This plan was presented by the state director and faculty members to superintendents of schools in Vermont. Again, helpful suggestions resulted and these were incorporated into a second edition of the plan.

In the spring of 1968, this plan was presented to superintendents, or their representatives, of five school districts close to the University of Vermont. These school districts agreed to participate in the plan and to begin implementing a mainstreaming approach in the fall of 1968. The mainstreaming approach these institutions adopted is called the "consulting teacher approach."

The mainstreaming approach these institutions adopted is the "consulting teacher approach."

A consulting teacher is employed fulltime by the school district and also receives a university faculty appointment.

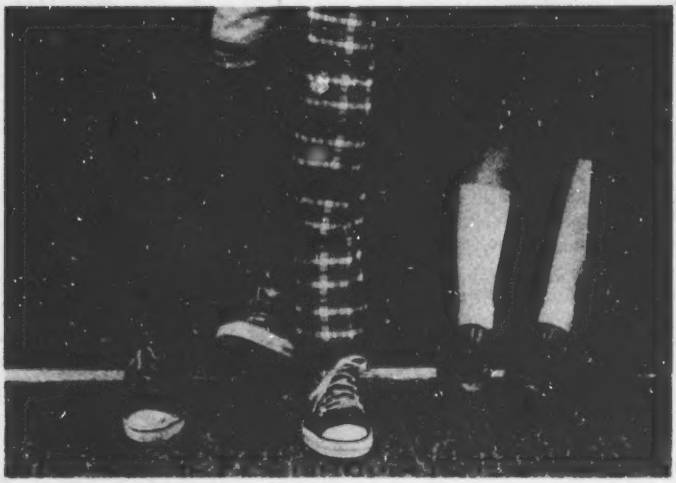
The consulting teacher trains regular classroom teachers to provide special education to eligible children through consultation on referred children, workshops which can apply for teacher recertification, and formal courses which receive graduate credit at the University of Vermont. A consulting teacher is employed fulltime by a school district and receives an appointment as an associate faculty member of the Special Education Area, College of Education and Social Services, the University of Vermont. School districts receive 75% of salaries of the consulting teacher and the fulltime aide from the state department of education. More complete descriptions of the consulting teacher approach to special education can be found in this book in the chapter by Susan Hasazi, as well as in Christie, McKenzie, and Burdett, 1972; Fox, Egner, Paolucci, Perelman, McKenzie, and Garvin, 1973; McKenzie, 1972; and McKenzie, Egner, Knight, Perelman, Schneider, and Garvin, 1970.

The major role of the university has been to train consulting teachers and place them in school districts.

The major role of the University of Vermont has been to train the consulting teachers and to place them in Vermont school districts. To be successful in this major role, the University had to undertake many related activities. These activities can be conveniently summarized under the four factors helpful in mainstreaming.

A COOPERATIVE EFFORT OF THE STATE, SCHOOL DISTRICTS, AND UNIVERSITY.

□ From the beginning of mainstreaming in Vermont, faculty, students, and staff of the Special Education Area of the University of Vermont have made extensive commitments to helping the state department of education and Vermont's school districts implement successful mainstreamed special education. Inputs on the selection, training, and placement of consulting teachers have been sought continually from officials in Vermont school districts and state department of education. Over the seven years that the program to train consulting teachers has existed, these officials have been involved in the evaluation of the University's training of consulting teachers, both formally and informally. These evaluations have led to constructive changes in the training program.



Classroom teachers, principals, superintendents, school directors, parents, and children and youth eligible for special education in regular classrooms have all provided valuable feedback, welcomed by the Special Education area for its contributions to the improvement of the selection, training, and placement of consulting teachers.

Classroom teachers, principals, superintendents . . . children and youth . . . have provided feedback.

The University of Vermont has cooperated with the state department of education and local school districts to implement successful mainstreamed special education in the following additional ways:

1. Helping regular educators become mainstream educators.
2. Helping Vermont's communities to understand and support mainstreaming.
3. Helping develop an accountability system for Vermont's mainstream special education.

HELPING REGULAR EDUCATORS

Consulting teachers share their skills with school administrators

□ In implementing mainstreaming in Vermont, then, it was the University's responsibility to select and train consulting teachers, who ultimately would train over 4,200 regular classroom teachers in the skills, attitudes, and knowledge requisite to successful mainstreaming. In addition, these consulting teachers would share their skills and knowledge in mainstreaming with school administrators and other educational personnel.

In regard to the selection of candidates trained as consulting teachers, the state department of education, representatives from school districts, and special education faculty at the University determined that only experienced regular or special classroom teachers would be accepted into the consulting teacher training program. It was thought that a minimum of two years teaching experience would be absolutely essential, with candidates with more than two years experience being favored. In fact, over the seven year history of the program, the median number of years of teaching experience of candidates has been approximately five.

Only experienced teachers would be accepted into the training program.

It was felt that greater emphasis should be placed on candidates' demonstrated success as educators, rather than on academic aptitude or potential. Of course, there had to be minimum academic potential, but given that, greater weight was placed on demonstrated success as an educator. Thus, besides the usual letters of recommendation, candidates are required to have at least one fellow teacher, a supervisor, and a parent of a child whom the candidate had taught submit letters of recommendation. Additionally, those who submit letters are contacted by telephone by University faculty to gain further information on the potential candidate. Candidates are sought who have been perceived as leaders by their fellow teachers (e.g., have been elected to negotiation committees). A person with a high level of social skills is sought—for someone who really likes people, and in particular likes educators and parents. All candidates who have met initial screening criteria must come for an interview to Vermont if they are to receive final consideration.

Candidates are required to have at least one fellow teacher, a supervisor, and a parent . . . submit letters of recommendation.

We look for a high level of social skills, for someone who really likes people, and in particular likes educators and parents.

Annually recruitment posters are sent to every school in Vermont with the request that the principal place these on the teachers' bulletin board. National advertisements are also placed to insure that a large pool of qualified people will apply. This has paid off. During

the last several years, there have been over 800 applicants per year. On rare occasions, when a district chooses to do so, it may select one of its teachers who meets qualifications to become a consulting teacher in training. This person then goes to the University and receives training, returning a year later as an intern in the district.

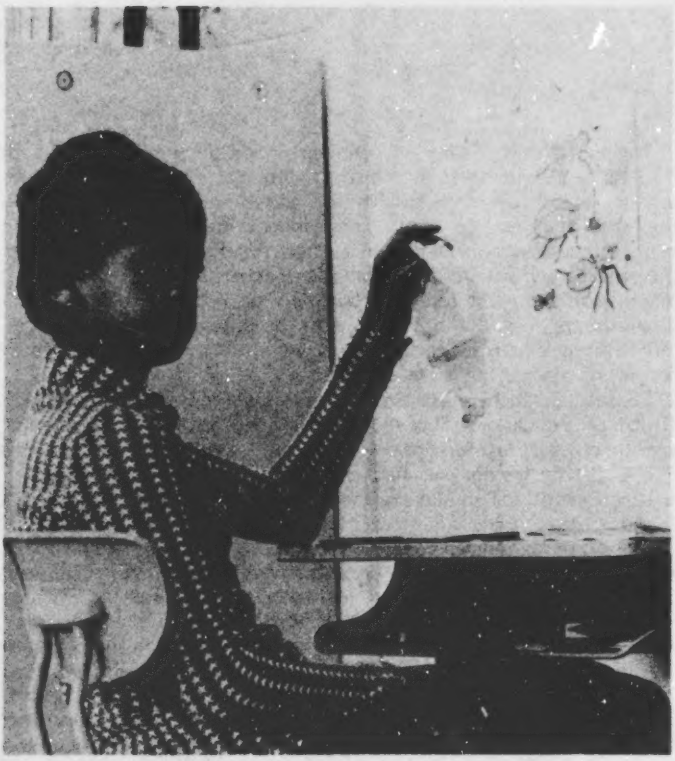
A district may select one of its teachers . . . to become a consulting teacher in training.

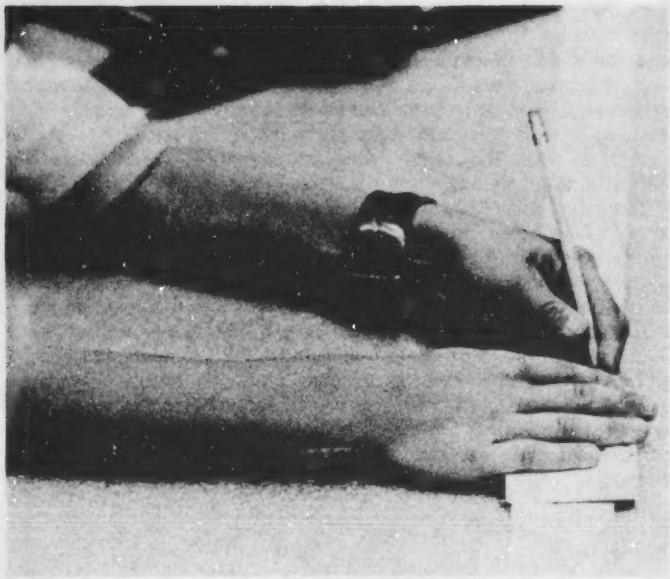
Selecting good candidates is important, but the University also had to insure that the training was adequate so that consulting teachers would be able to train regular classroom teachers to be successful in mainstreaming efforts. Thus, it was felt that the typical 30 hour Master of Education degree would not be sufficient to provide the training consulting teachers needed, particularly in the area of

supervised field experience. Consequently, a one summer and two academic year, fulltime graduate program was devised, totaling 60 graduate credit hours. Fifteen of these credit hours involve more formalized coursework, while 45 of the credit hours are earned by providing services to children and youth in regular classrooms and by teaching regular classroom teachers skills which they need to be successful with the wide range of individual differences that mainstreaming involves.

Consulting teachers in training serve 30 children in their graduate program, having to produce hard evidence that these services have been successful. This evidence takes the form of reliably measured acceleration in the rates of achieving desired educational outcomes for children and youth eligible for special education. For a minimum of 20 of the service projects, the consulting teacher must train a regular classroom teacher who him/herself implements the special learning procedures for an eligible child or youth in his/her classroom. Parents of children served, school administrators, and faculty periodically observe teaching/learning procedures implemented to insure that changes in observed children's learning rates are real.

Parents, school administrators, and faculty periodically observe . . . to insure that changes in children's learning rates are real.





The consulting teacher in training spends the first summer and fulltime academic year at the University carrying out supervised practica in schools close to the University. Toward the end of the first academic year, the consulting teacher in training, with a faculty member and several of Vermont's school districts, begins procedures that ultimately will lead to placement as an intern in a Vermont school district for the second academic year. Both intern and school district enter into the internship with the understanding that if the internship is satisfactory, the district will hire the intern as a fulltime consulting teacher the following year.

Consulting teachers are trained in a Data Based Individualized Model of Education.

Consulting teachers are trained in a Data Based Individualized Model of Education. This model makes no effort to characterize various types of learners, but it is generally applied to every learner. For a specific learner, teacher, and curriculum, specific and unique applications of the model are made. Details of this model may be found in Fox, Egner, Paolucci, Perelman, McKenzie, and Garvin, 1973, and in McKenzie, 1972.

Throughout their training, consulting teachers are taught applied behavior analysis; instructional technology, individualizing instruction; consulting and training skills; dissemination, planning, and administrative skills; as well as skills in communicating and cooperatively working with other specialists, such as mental health workers, speech pathologists, guidance counselors, and social workers. Throughout the first year of training, consulting teachers in training assist faculty in providing courses on campus to both graduate and

undergraduate students. During the second year of training, these candidates serve as associate instructors offering courses for University graduate credit to teachers in their internship districts.

In summary then, the training of consulting teachers is competency based in that it emphasizes successful special education being provided to children and youth. Moreover, the consulting teachers during training must demonstrate training of a regular classroom teacher to accelerate the learning rates of children eligible for special education. That the teacher has actually learned effective skills from the consulting teacher in training has to be demonstrated with reliable measures of the child's changes in learning rates, which are believable to the child's parents, the principal, and faculty of the University, as well as to the classroom teacher and the consulting teacher in training. Thus, each consulting teacher is trained not only in those skills necessary to accelerate the learning of desired educational outcomes of children and youth eligible for special education, but just as importantly, to train regular educators in these same skills.

Training is competency based.

To achieve such competencies, a tremendous amount of faculty supervision must be provided. In Vermont's experience, a fulltime faculty load is the supervision of no more than three consulting teacher interns. This allows for adequate supervision of the interns, extensive planning and development work with administrators of the internship district, and travel between the internship districts and the University. In the first year of training, one faculty to four consulting teachers in training ratio has been found necessary.

A fulltime faculty load is the supervision of no more than three consulting teacher interns.

Once the consulting teachers have been selected, trained, and placed in Vermont school districts, they implement training of regular classroom teachers on one or more of three possible training levels:

Consultation. A regular classroom teacher refers a child or youth to the consulting teacher as one needing special education services the consulting teacher can provide. The consulting teacher and classroom teacher then discuss the referral, setting appropriate instructional objectives for the referred child, measuring his entry level, devising appropriate teaching/learning procedures, and arranging for a measurement system that will lead to the evaluation of these procedures.

Parents of the child are informed of what is planned for the child and permission of the parents is secured before implementing the special teaching/learning procedures. The teacher does the actual implementation or supervises a paraprofessional or peer tutor, taking regular measures of the child's progress. Occasionally, the consulting teacher also takes measures to insure reliability. Thus, through these consulting procedures a regular classroom teacher begins to gain the skills required to mainstream special children and youth.

Workshops. Consulting teachers offer workshops to regular classroom teachers on individualizing instruction, applied behavior analysis, measurement procedures, and ways to adapt regular curriculum materials to the needs of children eligible for special education. It has been arranged through cooperation of the University, state department of education, and school districts that such workshops can be applied toward teacher recertification.

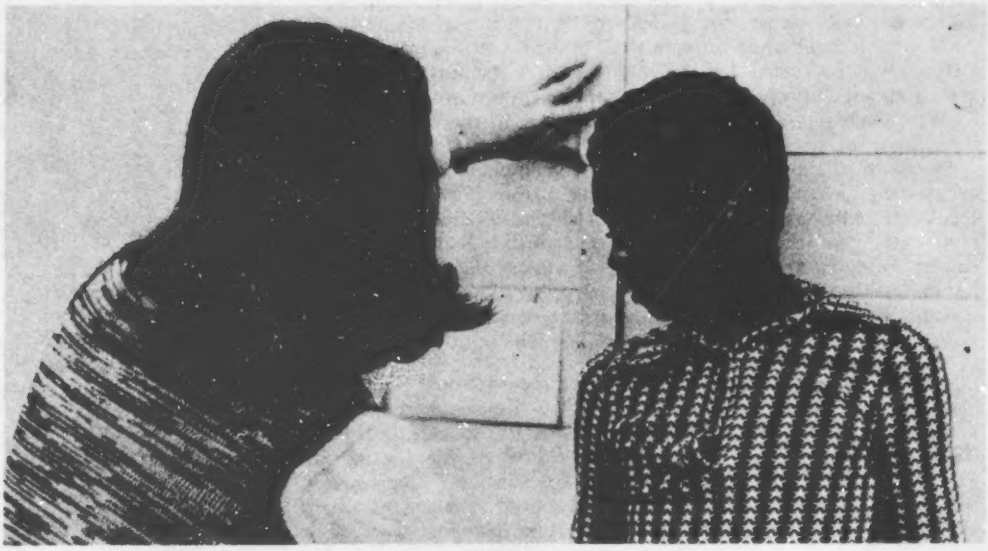
Formal Coursework. Consulting teachers are appointed as associate faculty of the Special Education Area of the University of Vermont. As such, they can offer up to four three credit hour graduate level courses to educators in their districts. These courses are designed to provide the skills, attitudes, and knowledge required to accommodate the wide range of individual differences involved in mainstreaming efforts.

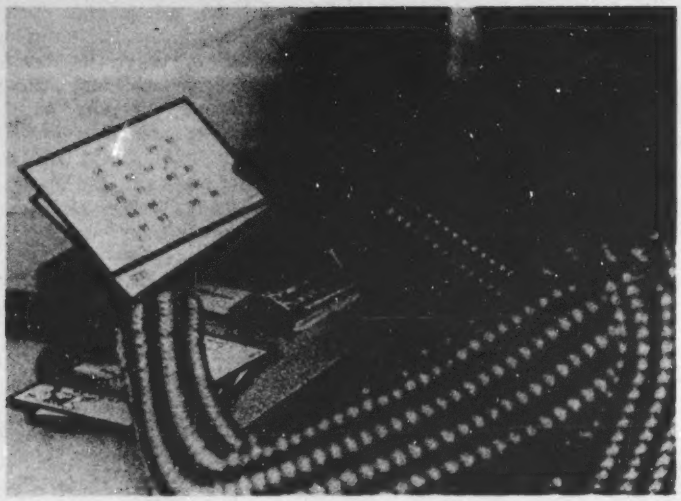
Since consulting teachers are fulltime employees of Vermont school districts and are offering these courses as part of their services for the districts, the University provides eight tuition vouchers per semester to each consulting teacher to be distributed to educators taking the consulting teacher's courses. Each tuition voucher entitles its holder to three credit hours of University coursework without charge.

Thus, the major vehicle in Vermont's mainstreaming efforts to provide regular educators with the skills, attitudes, and knowledge essential to including children and youth eligible for special education in regular classrooms is provided through consulting teachers.

Each summer, the university offers a program for regular educators.

Additionally, each summer the University of Vermont offers a program for Vermont's regular educators to receive training in mainstreaming. As part of this program, the University operates a small school with students from three to 19 years old. These students present a wide range of individual differences, including children who are struggling to learn their first reading words, children who are learning how to talk, and children and youth quite advanced in their academic and social skills. Regular classroom teachers, resource teachers, preschool teachers, principals, and guidance counselors are among the educators who attend the University summer programs.





Recently, the University has begun a preservice program—the *Responsive Teacher Program*—for undergraduate students preparing to be elementary or secondary level teachers. It offers concentration in special education skills which will enable provision of mainstreamed special services. The program is field based, involving extensive practica in the education of children and youth eligible for special education in regular elementary and secondary classrooms. The undergraduates in the Responsive Teacher Program are taught to provide an individual learning environment for every learner and to be accountable to the community which they serve to insure that every learner attains proficiency in basic skills.

☐ The special education faculty, students, and staff of the University have undertaken extensive activities to engender understanding and support of mainstreaming in Vermont's communities. There are 57 superintendencies in the state, encompassing over 300 elementary and secondary schools. University personnel, often with a representative from the state department of education, have made presentations on Vermont's mainstreaming approach to each of the 57 superintendencies. Presentations have been made to superintendents, their assistants, principals, teachers, school boards, parent groups, and local service organizations.

Before a school district takes an intern, extensive planning activities are undertaken with the school's administrators, teachers, and other educational personnel to establish how the mainstreamed special education will be specifically tailored to the characteristics of that district. In several cases, these planning activities have gone on for years before a given school takes an intern.

HELPING COMMUNITIES UNDERSTAND AND SUPPORT MAINSTREAMING

Presentations have been made to superintendents, their assistants, principals, teachers, school boards, parent groups, and local service organizations.

Planning activities are intensified in the spring before the internship year. This planning involves the specification of the roles of the consulting teacher intern, the principal, the superintendent or his assistant, the classroom teachers, and other educational personnel, as well as the role of the University's faculty supervisor of the intern. These role definitions, as well as the objectives of the internship year, are written into a formal plan of operation. The school's principal and superintendent or assistant, the intern, supervising faculty, and chairman of the University Special Education Area all indicate their approval and support of the final plan by attaching their signatures to it.

Role definitions, as well as objectives of the internship year, are written into a formal plan of operation.

Planning activities continue throughout the internship year. The eventual planning goal is a long range plan approved by school district and state department of education for achieving full mainstreamed special education services for all eligible children and youth in that district who can benefit from them.

The eventual planning goal is a long range plan . . . for full mainstreamed special education services for all eligible children and youth.

Faculty, students, and staff of the University provide assistance to the state department of education in enlisting the support of mainstreaming from communities. Presentations on the rationale, procedures, and achieved results of the consulting teacher approach have been presented to the state board of education, officials in the budget and management office of the state, the governor, and a substantial number of legislators.

University faculty have also helped the state department of education, as well as other interested educators around the state, write new special education legislation, which in part was aimed at facilitating mainstreaming efforts. To support this legislation, University faculty and staff were instrumental in organizing political action groups in the 13 counties, helping provide information on the proposed legislation. These groups then could disseminate the information to their state representatives in the Vermont House and Senate. Legislation was passed and funded.

University faculty were instrumental in organizing political action groups.

A facet of the new legislation provided that special educators, such as consulting teachers, would receive 75% of their salaries, and the salaries of their aides, from state monies. Thus, a very straightforward and satisfactory manner was provided to school districts for receiving state reimbursement for mainstreamed special education.

A very straightforward and satisfactory system was provided to school districts for state reimbursement.

In addition to hundreds of presentations to various groups in the state, University faculty developed five programs on mainstream special education for Vermont's educational television station. Radio stations and newspapers are additional media through which University faculty, students, and staff have arranged dissemination of mainstreaming information.

Radio stations and newspapers are additional media . . . for dissemination of mainstreaming information.

Another major instrument for enlisting community support has been the extensive parental involvement that the consulting teacher approach requires. Parents are involved in every aspect of the services provided by consulting teachers, from permission to employ these services, to the specification of instructional objectives and teaching/learning procedures for their child, to receiving training and implementing teaching/learning procedures of their own in the home and evaluating the services given. Appreciative parents have done much to disseminate the benefits of Vermont's mainstreamed special education services and, thus, to enlist the support of an ever increasing number of residents of Vermont's communities.

Parents are involved in every aspect of the services provided by consulting teachers.

HELPING DEVELOP AN ACCOUNTABILITY SYSTEM

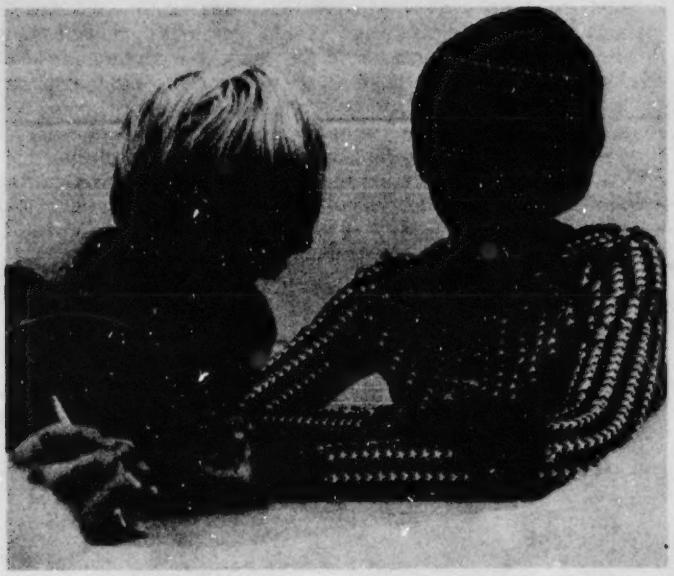
□ The University's Special Education Area continually invests research and development resources in Vermont's mainstreaming efforts. This investment has led to the development of a number of teaching/learning procedures which the regular classroom teacher can employ to effectively educate children eligible for special education in regular classrooms, as well as to adapt regular curriculum materials for the special child (e.g., Burdett & Fox, 1973). One of the major efforts that the University has engaged in is the development of an accountability system for mainstreamed special education. This accountability system is briefly described as follows (see Christie & McKenzie, 1975, for a fuller explanation).

A major effort of the university is the development of an accountability system for mainstreamed education.

With the assistance of a consulting teacher, teachers and principals of a given school specify the skills, attitudes, and knowledge that each and every child, at minimum, should learn in language (e.g., reading, writing, speaking, and spelling) and arithmetic. This specification involves the writing of instructional objectives which are explicit and public in regard to desirable minimum outcomes. Sets of these objectives are paired with a given grade level, so that for each grade level, a minimum number of instructional objectives in language and arithmetic will be achieved by each child by the completion of the school year.

With the assistance of a consulting teacher, teachers and principals specify skills, attitudes, and knowledge . . . .

Sets of objectives are paired with a given grade level.



Additionally, objectives for a given grade level are broken down into 10 subsets of objectives, so that one subset is to be achieved, at minimum, by each and every child in that grade every 18 days. For example, let us assume that for a K-5 school, the teachers and principal, with the assistance of the consulting teacher, specify 180 arithmetic instructional objectives that are to be achieved, at minimum, by each and every child by the end of his six years of instruction in that school. For simplicity's sake, let's assume that the first 30 of these instructional objectives are to be achieved by every child in kindergarten, the second 30 by every child in first grade, and so on. With a 180 day school year, this would also mean that, at minimum, each child would achieve three arithmetic objectives for every 18 days of instruction.

Once the objectives have been specified and paired with grade levels and 18 day instructional periods, teachers, with the help of the consulting teacher, specify systems to measure the achievement of these objectives for every child for every 18 day period. Procedures are also devised so that the principal, consulting teacher, and perhaps other educators can also take the same measures as the teachers to insure reliable indicators of each child's progress in achieving the objectives.

A mainstream special education accountability system should provide for the following factors:

1. Eligibility for special education.
2. Evaluation of special services provided.
3. Determination of when exit from the special education services is appropriate.

With the specification of instructional objectives described above, as well as the pairing of each of these instructional objectives with a particular number of years (or parts of years) of instruction, all factors of a mainstream accountability system are provided. A child is judged eligible for consulting teacher services when he is not achieving objectives at the specified minimum rate, as measured by the teacher and the consulting teacher, and when the teacher states that he/she has exhausted his/her repertoire in trying to accelerate this child's rate. Thus, in our example of the K-5 school with its 180 instructional objectives for arithmetic, a child with 3.2 years of instruction would be expected at minimum to have achieved the first 96 of the 180 arithmetic objectives. If the teacher's measures indicated that the child had achieved only 24 of these objectives and he/she had exhausted his/her repertoire in attempting to accelerate the child's learning, the child would be eligible for mainstreamed special education and referred to the consulting teacher.

The following evaluation criteria of consulting teacher services have been accepted by the state department of education, the University, and school districts in Vermont: If the child's rate of achieving instructional objectives has been increased to the extent that it is:

1. Apparent that the child will have achieved all minimum instructional objectives by the end of the years of instruction that school offers (e.g., a K-5 school offers six years), or
2. Double that of the minimum rate expected of every child, that is, he achieves two months of objectives for one month of instruction.

In the above example of the K-5 school with 180 arithmetic objectives, and our child with 3.2 years of instruction, who achieved only 24 objectives (at minimum he should have achieved 96 objectives), to judge consulting teacher services successful, the child's rate would have to be accelerated either to: (a) achieving approximately 56 instructional objectives per instructional year, or (b) achieving 60 instructional objectives per instructional year. Concurrently, measures of other children's rates of achieving instructional objectives continue to be checked to insure that their achievement rates remain satisfactory.

In regard to determining appropriate exit from mainstream special education services provided by consulting teacher and classroom teacher, when the eligible child has achieved the minimum number of objectives expected of every child with his same number of years of instruction, and when he continues to achieve these objectives at the minimum rate expected of all children, he is no longer eligible for special services provided by the consulting teacher. (For a graphic explanation of this accountability system, see Christie & McKenzie, 1975, and Egner & Lates, 1975.)

This approach of specifying instructional objectives . . . is not intended to limit total amounts of learning for any child.

This approach of specifying instructional objectives for language and arithmetic, and specifying how many of these instructional objectives must be learned for each one-tenth year of instruction is not intended to limit total amounts of learning for any child, nor does it in Vermont practice. What it does do is place a floor, or minimum rate, of learning that is expected of each child. In helping teachers and principals develop instructional objectives and minimum rates for their acquisition, consulting teachers insure that minimum learnings needed by children are emphasized over minimum learnings the school might believe it can deliver to children. In other words, the primary criterion for selecting the minimum instructional objectives is that they be the minimum required for a child to have a reasonable chance for success in his current community and in his future life. This is a difficult task and one in which much research and development is required.

The primary criterion for selecting minimum instructional objectives is that they be the minimum required for a child to have a reasonable chance for success in his current community and in his future life.

An additional safeguard to insure that the minimum is not too minimum is that consulting teachers through their principals arrange for school directors to review and approve specified instructional objectives, as well as for parents and other members of the community to do so. Such broader base participation in the specification and approval of objectives provides balance to the judgment of professional educators.

PROGRESS IN ACHIEVING MAINSTREAMING

□ Mainstream special education has expanded from the 1968 level when five Vermont superintendencies and nine elementary schools in these superintendencies were involved in the program, to the fall of 1975 when 28 superintendencies with over 150 of their elementary and secondary level schools provide mainstream special education. During the 1975-76 school year, it is projected that 2,000 children and youth will receive mainstream special education through 35 full-time consulting teachers and 12 interns employed by Vermont school districts, as well as by 12 consulting teachers in training. Some 870 regular classroom teachers will receive training from consulting teachers through consultation, workshops, and courses offered for University of Vermont graduate level credit.

During the 1975-76 school year, it is projected that 2,000 will receive mainstream special education.

Most of the 47 mainstream special education programs offered in the fall of 1975 in Vermont will be directed toward elementary level children, with three preschool programs which are home based with the parents as teachers, and five which are based in secondary schools. School district requests for consulting teachers far outstrip the University's current capacity to train them, and the state department of education has requested that the University train and place over 200 consulting teachers by 1983. (See Fox, et al, 1973, pp. 40-42 for additional comments on progress.)

Requests for consulting teachers far outstrip the university's current capacity to train.

Thus, it appears that the Special Education Area of the University of Vermont has been able to make contributions to Vermont's efforts in mainstreaming special education. Over 3,000 children and youth in Vermont eligible for special education have been served by consulting teachers in training and graduate consulting teachers through provision of consultation and training to regular classroom teachers. In the selection and training of consulting teachers, the University has made errors as new programs tend to do. However, because of the close cooperation with the state department of education and school districts, and the valuable input and evaluative data these agencies have provided, this training program has been able to improve continually so that services to children and youth have become increasingly effective, as has the training of regular educators in the skills of mainstreaming.

Over 3,000 eligible for special education have been served by consulting teachers in-training and graduate consulting teachers.

Because of evaluative data, installation of this mainstreaming approach is no longer an agonizing effort of all concerned. Now mainstream services can be tailored to meet the individual needs of a school, and the program's development and implementation proceed smoothly to the satisfaction of most of those invoived. It has meant a tremendous commitment on the part of the faculty, staff, and students of the Special Education Area at the University of Vermont to make this contribution to mainstreaming efforts. The rewards have also been tremendous. Members of the Special Education Area are well received and well respected by their professional colleagues in the state department of education and Vermont school districts. Their worthwhile efforts have provided the opportunity to develop competency and field based teacher training programs which have led to the provision of successful mainstreamed services to thousands of Vermont's children and youth eligible for special education.

Now mainstream services can be tailored to meet the individual needs of a school.

HOW TO ENLIST HELP FROM A TEACHER TRAINING INSTITUTION

□ It is hoped that the preceding material demonstrates to those readers from colleges and universities that higher education's role in mainstreaming is both challenging and rewarding. It is also hoped that it demonstrates to readers from school districts and state departments of education that institutions of higher education can contribute to the effective implementation of mainstream special educational services.

If the latter is the case, then the question of how one enlists the support of higher education becomes meaningful. There is no simple answer to this question, as institutions of higher education vary, as do the settings in which these institutions operate.

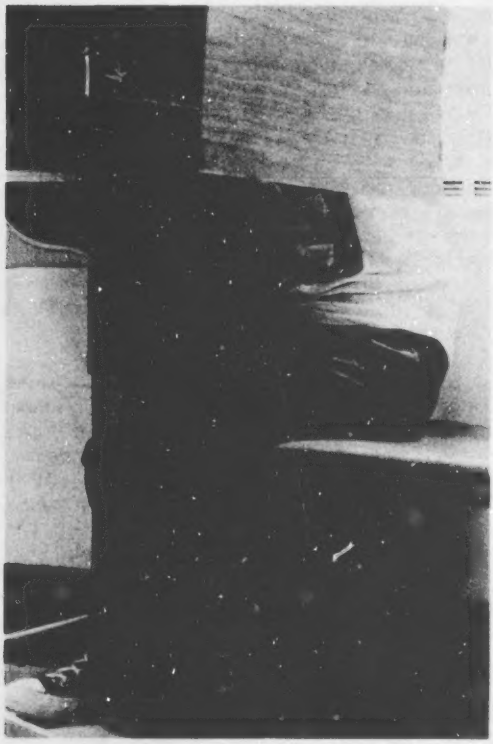
Moreover, and unfortunately, many institutions of higher education carry out teacher training programs which are not field based and thus find it difficult to make the shift from campus realities to the realities of the public school. In short, it seems that enlisting help

Enlisting help . . . will require a considerable expenditure of energy and resources.

with mainstreaming from teacher training institutions will require considerable expenditure of energy and resources. It is a problem of changing institutions and thus may be considered a problem in the exercise of power. It is certainly a problem in how to share effectively with higher education the challenges and rewards that mainstreaming involves.

It also seems that the public schools and state departments of education have in their power those things which can change a teacher training institution, and it is particularly recommended that several public schools and their state department of education cooperate in enlisting the support of a teacher training institution. Public schools have student teacher placements and other practica opportunities to offer teacher training institutions. Public schools hire, or not, the graduates of a given teacher training institution. Public schools can, or not, offer teacher training institutions opportunities for research. Public schools have access to special funds, such as Title I and Title III, ESEA, which can be shared with teacher training institutions for joint projects.

Public schools have access to special funds which can be shared with teacher training institutions for joint projects.



State departments of education set and enforce rules and policies for all of public education, including the certification of educational professionals who are trained by the institutions of higher education. State departments of education have access to such funds as those falling under the Education of the Handicapped Act, Part B, which could be used for joint mainstreaming projects with a teacher training institution and public schools.

Thus, it is clear that public schools with their state department of education have sufficient power and incentives to enlist the support of a teacher training institution in the cause of mainstreaming special education. With the skilled and judicious use of these incentives, public schools and a state department of education should be able gradually to bring a given teacher training institution into a cooperative mainstreaming effort. These incentives will need to be shared with the teacher training institution, but only as the teacher training institution commits itself to meaningful participation.

Public schools, with their state department of education, have sufficient power and incentives to enlist the support of a teacher training institution in the course of mainstreaming special education.

Although institutions of higher education are not generally noted for progressive changes in their teacher training programs, it seems clear that public schools and a state department of education in concert could successfully bring about changes by wielding the power they hold in a carefully planned sequence. If public schools and their state departments of education believe that higher education can help in mainstreaming, and if they are willing to exercise the power they have with higher education, higher education will join with them to achieve successful mainstreaming.

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Trends and Priorities in Inservice Training

CAROLYN R. RUDE

Abstract: A comprehensive personnel development system in each state should provide inservice training to meet changing emphases in the education of handicapped children. Training topic and personnel group priorities are identified from inservice training plans initiated by each state. Possible trends are seen in the focus and level of training needed for various groups. Delivery of inservice training is becoming diversified in terms of training providers, modes, and resources. However, state plans do not reflect awareness of these varied means of training delivery. The need for evaluation and monitoring of inservice activities indicates a future priority.

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EDUCATORS are continuing to feel the impact of a shift in emphasis from children who have problems meeting school expectations to the problems schools have in meeting children's needs. This change, reflected in the new laws regarding education of handicapped children, has heightened concern for opportunities to develop attitudes and skills to accomplish new tasks. Traditionally, inservice training has been used to update skills and to introduce innovation into education. As a way of ensuring that appropriate inservice training programs are available to teachers, administrators, and others, a comprehensive personnel development system is called for in the regulations for Public Law 94-142, the Education for All Handicapped Children Act, Part B. This system provides a structure for each state education agency (SEA) to use to plan, implement, and evaluate inservice training opportunities at state and local levels.

Emerging nationwide trends and priorities for inservice training were identified through a state by state review of the personnel development section of the Annual Program Plans for 1977-78, submitted to the Bureau of Education for the Handicapped (BEH). This review, completed by The Council for Exceptional Children under a grant from BEH, shows that the scope of inservice training varies greatly from state to state. Trends and priorities were identified in terms of training topics, target personnel groups, training delivery, and additional training needs indicated in the development of a statewide training system.

Training Topics

Assessed needs of statewide significance are the basis for planning inservice programs initiated by the SEA. Needs assessment that re-

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sults in a list of training content areas allows planners to set goals and establish priorities among the goals. Effective and successful inservice programs are more likely to result when training is directed toward the needs of the training recipients (Hentschel, 1977; King, Hayes, & Newman, 1977). Various formal and informal needs assessments were planned or used by the SEA's reviewed to evaluate training needs. Assessment procedures that resulted in a list of priority content areas were described by fewer than half of the states. These assessments most frequently evaluated the priority needs of local education agency personnel, the largest group of potential training recipients.

Priority topics of inservice training needed differ across states. For example, Connecticut's first priority is to build communication and interpersonal relationships. The District of Columbia's first priority is self help skills for severely and multiply handicapped students, while Kentucky's first priority is awareness of committee members' roles and responsibilities for assessment and referral. An overall view of the needed training topics indicates the relative importance of each topic and results in a rank ordered list of the highest priority training topics nationwide (See Table 1).

The two sets of topics ranked as highest priority concern the day to day instructional and behavioral management of the handicapped child. These topics are closely related to the second ranked topic, particularly in implementation of the individualized education program (IEP). The third and fourth ranked needs concern finding and evaluating the handicapped child for the purpose of providing services. Least restrictive environment, the fifth topic, includes the development of alternative settings and matching of the handicapped child to the most appropriate setting. The sixth ranked topic is more general in nature and covers the essentials of compliance with the federal law. Communication skills are necessary for conferences with parents, educators, and others who are increasingly involved in the education of handicapped children. Coordination of services is essential for the effective interaction of those who deliever services to these children.

Many states also listed topics that were planned for inservice training programs. Overall, there is some difference between the topics most frequently needed and those most frequently planned. Needed training topics relating to communication and coordination of services, were often not planned, while protection in evaluation, procedural safeguards, and the role of surrogate parents were frequently planned but were not listed as high priority needs. Comparison of these two sets of priority training topics indicates a future trend if the stated needs are to be met. It appears that the current focus of inservice training on day to day child evaluation, placement, and instructional problems will continue while emphasis on due process related topics will give way to training concerns for effective provision of services.

TABLE 1

Rank Order of Highest Priority Needed Training Topics Nationwide

Rank order	*Topics*
1	Instructional procedures/classroom management
1	Curriculum/programing/materials/resources
2	Individualized education program
3	Identify, locate, refer handicapped children
4	Child evaluation procedures
5	Least restrictive environment
6	Implementing Public Law 94-142
7	Communication
8	Coordination of services

Personnel Groups

It is estimated that 260,000 special education personnel and over 2 million regular educators require inservice training to implement the provisions of Public Law 94-142 (National Advisory Committee on the Handicapped, 1977). Regular educators are a current focus of federal training funds. Of the $45.375 million made available to the Bureau of Education for the Handicapped for training through the Education of the Handicapped Act-Part D, 21.3% (or about $9.6 million) was earmarked for training of regular school personnel, with $6.5 million allotted to regular classroom teachers (Siantz & Moore, 1978). These educators are merely the tip of the iceberg when one considers, for in-

stance, the need to influence the attitudes of the general population toward the handicapped. The review of the state inservice training plans revealed that training was planned for four broad groups of individuals who affect the education of handicapped children: instructional, support, administrative, and others.

Instructional personnel to be trained include regular and special education teachers, teachers in the more specific areas of severe-profound and preschool handicapped, paraprofessionals, and teacher aides. Physical education and vocational education teachers are listed, and Indiana indicated training of content area teachers on IEP's and least restrictive environment. Support personnel listed as training recipients by the majority of states include psychologists and educational diagnosticians and speech and audiology personnel, as well as school nurses, medical personnel, and social workers. Vocational rehabilitation workers and work study coordinators were listed less frequently. Occupational therapists, recreational and physical therapists, and counselors were also identified.

Administrative personnel listed were principals, special education directors, supervisors, and coordinators. Other target groups were hearing officers, surrogate parents, parents, and volunteers. Four states mentioned training for school boards. State, regionals, and intermediate unit personnel were identified for training as were college and university personnel. Several states planned training for private and parochial school personnel, for the general public, and for community organizations and agencies. Alaska was the only state that planned to provide training to the state legislature.

Overall, the highest priority personnel to be trained are special education teachers; administrators; regular education teachers, supervisors, and coordinators; psychologists; educational diagnosticians; hearing officers; surrogate parents; and parents. The priority topic areas planned for these personnel groups are displayed in Table 2. IEP's rank as one of the top three priorities for all but one of the groups listed. Other topics are ranked for each group.

The level of needed and planned training varies for different groups. Awareness and

TABLE 2

Priority Training Topics Ranked for Personnel Groups

Planned training topics	*Priority personnel groups*						
	Special teachers	*Administrators*	*Regular teachers*	*Supervisor/ coordinator*	*Psychologist*	*Hearing officer/ surrogate*	*Parent*
Individualized educational program	1	1	1	1	3		2
Evaluation procedures	3		3		1		
Instructional procedures/ classroom management			2				4
Least restrictive environment	2	2	3				3
Protection in evaluation					2		
Procedural safeguards	4	3		2		1	3
Implementing Public Law 94-142		4	4				1
Surrogate parent						2	

Note: Numbers refer to rank order in each personnel group.

knowledge level training was planned to influence attitudes and provide information on basic aspects of the federal and state laws and policies and on rights of handicapped children and their parents. The broad variety of recipients of this type of training includes educators, parents, and noninstructional school staff, as well as leadership personnel in community and civic organizations. Groups of personnel with a narrower focus require more specific training on aspects of procedural safeguards, educational placement, management, and evaluation. Some training programs are oriented toward specific skill development for a particular group.

The majority of training experiences planned appear to be directed toward awareness and knowledge levels, even for groups such as regular classroom teachers who need specific skills to work with the handicapped. Future planning should show heavier emphasis on skill development for more groups but with continuing broad scale use of training for attitude and knowledge development.

Training Delivery

In the past, the bulk of inservice activities has been initiated by colleges and universities and by state education agencies. But there is growing recognition that relevant training can and should be delivered in a variety of ways by various trainers. Increasingly, training activities are being conducted by state and national special and regular education organizations and advocacy groups. Regional and state systems, such as the Regional Resource Centers, intermediate and local education agencies, as well as the state agencies and training institutions are providing and coordinating innovative opportunities for experienced educators to expand their capabilities to educate handicapped children. Teachers' views on inservice delivery reported in a recent National Education Association study (1978) emphasize experiential over theoretical training and use of support personnel as ongoing trainers to expand teachers' skills on materials and techniques. On-site training personnel available for long periods were a major characteristic of inservice programs that effectively influence and stabilize attitudes and complex teacher skills. (Lawrence, 1974; Mann, 1976).

Various training implementers and differential patterns of delivering training have led to development of training materials and resources that can be used in traditional courses and workshops but also lend themselves to more innovative uses. The most successful inservice activities have been found to use materials that are tailor made and prepackaged for the participants, offer early success and active participation, and allow self initiated, self directed learning (Lawrence, 1974; Mann, 1976).

State inservice training plans offered little information on the human and nonhuman resources to be used for training delivery. Implementation of training was generally planned via institutes, workshops, and consultation. The major source of trainers was listed as the state education agency and institutions of higher education, although other sources of trainers were also mentioned. Some states planned to present training to key trainers who would in turn implement local inservice training in a "trainer of trainers" model. This multiplier approach has the potential to successfully provide the ongoing contact of on-site trainer, as long as in-depth training and followup are available. Instruction on the skills needed to be a trainer is an important component of this approach. Few training materials were listed in the states' plans for use in developing expertise in the priority topic areas. Of those listed, the majority seemed to be local, state, or regionally developed products. Such products vary in quality and are seldom field tested and validated for use with different groups. It appears that duplication of effort rather than replication is the rule where training materials are concerned. Information on the availability and usability of training materials, such as that coming from several federally funded projects, should help educators identify appropriate resources. Projects conducted by The Council for Exceptional Children, the University of New Mexico, and the University of Iowa are charged with developing training resource information that should be useful to trainers.

Additional Training Needs

Although training evaluation and monitoring were not high priorities in state planning, they are necessary components of a personnel development system. Accountability is a growing issue as financial support for inservice training is increasingly tied to program priori-

ties and outcomes (Howey, undated). An evaluation design that relates data on child achievement to the needs based objectives of inservice training activities, assesses the immediate effect and long range impact of training programs. The greatest need now is for instruments to collect the data to document discrepancies between objectives and trainee performance (Burke, 1977).

Program evaluation procedures were discussed by just over half of the states. The procedure most frequently specified was the Discrepancy Evaluation Model developed at the University of Virginia Evaluation Research Center (Yavorsky, 1976). Other evaluation methods assessed achievement in competency based training programs. Monitoring systems for inservice training activities were indicated by less than half of the states, frequently as part of the overall monitoring system. Clearly, evaluation and monitoring will have to receive more attention in statewide training plans.

Conclusions

Personnel development for those involved with handicapped children is an emerging priority in education. Although statewide inservice training systems are currently in the initial stages of development, their potential is great for affecting the quality of education for handicapped children. Federal funds are currently available for training and suggestions have been made that long term state financing should support local level training directly related to educators' problems, motivational needs, and remedial skill development (Florio & Koff, 1977). Needs assessment, evaluation, and monitoring techniques still must be developed and refined in many states. However, the greatest need is for personnel training priorities to be answered by high quality training opportunities. The trend toward new types of trainers, delivery modes, and training resources should enhance the effectiveness of training. Increased availability of information and assistance in training delivery will help state planners identify and implement appropriate training. Comprehensive statewide training systems should make it possible to anticipate and prepare for new trends and changing priorities in the education of handicapped children.

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Mainstreaming Competency Specifications for Elementary Teachers

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In the majority of public schools, mainstreaming is the practice of educating handicapped children in the regular classroom while using the services of personnel such as resource teachers to provide specialized instruction for the students and assistance to the regular class teacher. To the authors' knowledge, no previous efforts have been reported that have attempted to obtain empirical data on competencies related to this topic.

The purpose of this investigation was to identify specific competencies reported by regular elementary classroom teachers as necessary to mainstream handicapped children effectively.

Procedures

Subjects for this investigation were 493 elementary teachers from 24 schools in 4 Kentucky communities. Each school was in at least its second year of mainstreaming and was selected according to seven criteria. The Critical Incident Technique (Flanagan, 1962) was used as the research methodology. Questionnaires were developed to obtain specific incidents of three effective and three ineffective behaviors that related to the instruction of handicapped children who were being mainstreamed. The questionnaires required that the respondents specify when the incident occurred, the antecedents leading up to the incident, the behavior that occurred, and the consequences of the behavior that led them to conclude that it had a significant impact on their mainstreaming efforts.

Following receipt of the questionnaire, the incidents were translated into competency statements, redundancies were eliminated, and competencies were grouped into categories. Reliability of this process was checked on a random sample of statements by a panel of judges. A second panel of experts on mainstreaming provided their opinions on the importance of each statement.

Results

Responses were received from 184 of the teachers who were surveyed. This resulted in the identification of 828 critical incidents. When redundancies were eliminated and reactions of judges obtained, 271 specific tasks related to mainstreaming were identified. These were subsumed by 32 competency statements, which were then grouped into 6 broader categories, called functions.

The following 6 functions and 32 competency statements were identified. A complete list of the competencies is available elsewhere (Redden, 1976). Each competency statement completes the declarative stem: In order to effectively teach mildly handicapped students who are integrated with regular students in a mainstream elementary classroom setting, the teacher must be able to:

Function 1.0: Develop Orientation Strategies for Mainstream Entry

1.1 Participate in schoolwide planning for mainstreaming activities.
1.2 Set up a training plan that will provide supplementary instruction in areas necessary to teach effectively in a mainstream setting.
1.3 Participate in parent and community orientation programs on mainstreaming.
1.4 Seek out consultative relationships with specialists or school staff.
1.5 When appropriate, develop a program to prepare the special student for entry into a regular class.

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1.6 Prepare members of the regular class for the entry of special students into the class.

Function 2.0: Assess Needs and Set Goals

2.1 Gather information to determine the educational needs of each student.
2.2 Evaluate each student's present level of functioning.
2.3 Determine for each student in the class individual goals that are appropriate, realistic, and measurable.
2.4 Determine group goals for the class as a whole and for subsets within the class.
2.5 Involve parents in setting goals for their child and for the class as a whole.

Function 3.0: Plan Teaching Strategies and Use of Resources

3.1 Design a system of teaching procedures that provides for individual differences in students.
3.2 Specify and prepare a variety of activities that will involve the entire class in grouping patterns that are varied and flexible.
3.3 Develop and design a variety of alternate teaching strategies.
3.4 Develop a plan for use of human and material resources.
3.5 Develop a flexible time schedule that provides for the learning, physical, and social needs of each student.
3.6 Provide an optimal classroom climate through appropriate arrangement and adaptation of the physical properties of the classroom.

Function 4.0: Implement Teaching Strategies and Use Resources

4.1 Select and use a variety of individualized teaching methods to instruct each student within the student's level or capability of functioning.
4.2 Develop, schedule, and maintain on a regular basis a variety of grouping patterns that provide opportunities for students to reach class goals, both social and academic.
4.3 Use the efforts of the special education resource staff with the special students' classroom activities.
4.4 Acquire, adapt, and develop materials necessary to achieve learning goals.
4.5 Plan and maintain a system to use the assistance of volunteers (other students, parents, etc.) to reinforce and supplement classroom activities.
4.6 Develop a plan to use the talents of parents in supporting the learning activities of their child and those of other students in the class.

Function 5.0: Facilitate Learning

5.1 Identify and differentiate between a variety of behavior management techniques and develop skills in selecting appropriate techniques to manage individual and/or group behavior.
5.2 Select and apply adequate behavior management techniques and measures to meet the learning goals set for the class and each individual student.
5.3 Acknowledge appropriate behaviors in each student in order to stimulate continued effort.
5.4 Conduct class activities in a way to encourage interaction between and among students.
5.5 Provide ample instruction and practice for each child to develop and refine adequate coping strategies.
5.6 Plan with class for systematic appraisal and improvement of the psychological climate of the class.

Function 6.0: Evaluate Learning

6.1 Organize a system to collect and record data by which to evaluate student progress toward goal attainment.
6.2 Develop a feedback system that will furnish continuous data to student, teacher, and parents on goal attainment.
6.3 Use evaluation data to assess goal attainment in order to measure terminal outcomes and set new goals.

Conclusions and Implications

Previous efforts to identify competencies for mainstreaming have been in the form of a priori statements based upon values, opinions, and judgments of special educators. This investigation obtained specific observable behaviors from teachers who were involved in the mainstreaming process. Although there was considerable congruence between the results of this study and previous reports of

competencies, several major differences were found. This investigation found a greater concern for orientation strategies to facilitate mainstream entry, focusing on the child as part of the class group, and competencies required for good teaching in general.

Keeping in mind potential limitations related to small sample return, validity of instruments, generalizability, the retrospective nature of the data, and questions related to possible subjective bias, this investigation has several implications for application to practical situations. The functions, competencies, and tasks could serve as the basis for preservice and inservice training program development. They could also be used to develop job descriptions for elementary teachers who are mainstreaming handicapped children. Procedures for screening, interviewing, and selecting teachers could be developed. In addition, they could serve as criteria for third party evaluation of teaching performance and as a self assessment tool by teachers who are planning individual professional development programs.

As a final note of caution, there is a need for additional research to determine whether these competencies are valid and whether items should be added or deleted. These competencies should be viewed as an initial list that can serve as a point of departure for future efforts that may eventually lead to a more complete and valid list of mainstreaming competencies.

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Training Teachers for the Severely and Profoundly Handicapped: A New Frontier

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Abstract: Due to recent litigation and legislation, there will be an influx of severely and profoundly handicapped individuals into community based public education programs. As a result, teachers who possess the knowledge and skill to foster the growth of these individuals will be needed. The onus of responsibility is on the universities to prepare competent teachers. This article examines the basic components that will have to be integrated into the existing structures of teacher training programs to adequately prepare teachers of the severely and profoundly handicapped.

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The severely and profoundly handicapped consist of a group of individuals who until recently could generally be found on the back wards of large state institutions. They were frequently found in cribs responding very little to the limited stimuli present. Sontag, Burke and York (1973) describe these children as those who self mutilate, regurgitate, ruminate, aggress towards others, display stereopathics (rocking, handwaving), manifest durable and intense temper tantrums, have serious seizures, and/or have extremely brittle medical existences. Included are those who do not suck, swallow or chew, imitate, ambulate, speak, see, toilet themselves, respond to simple verbal commands and/or those who do possess multiple handicaps. They have been labeled untrainable, profoundly retarded, seriously disturbed, multiply handicapped, crib cases and custodial.

It was not until behaviorists (Bensburg, Colwell & Cassel, 1965; Fuller, 1949; Rice & McDaniel, 1966) began conducting research with this population that the learning potential of the severely and profoundly handicapped was recognized. While the necessary initial research was being conducted, parents of these individuals began lobbying through such strong parent groups as the National Association for Retarded Citizens (NARC). They worked to gain for their children educational and training opportunities to enable them to develop their full potential. This parental pressure resulted in several major court decisions (e.g. Pennsylvania Association for Retarded Children v. The Commonwealth of Pennsylvania, 1972) that have expanded public educational services to

From Exceptional Children, January 1976, pp. 203–210. Copyright © 1976 The Council for Exceptional Children

include the severely and profoundly handicapped.

Along with this emphasis on the right to education for these individuals, the "deinstitutionalization philosophy" has evolved which postulates that equal education for this group should come under the jurisdiction of public education. It is noted that education is the job of public educational agencies, not of social services in an institutional setting. As a result of this philosophy, court decisions, and parental pressures, laws have been passed in many states (Education Commission of the States, 1972) that place the responsibility on the public schools for the education and training of the severely and profoundly handicapped.

Other events have signaled a growing commitment to the education of this group.

1. In March/April, 1975, the NARC held a national training meeting on the education of the severely and profoundly retarded,
2. A new American Association for the Education of the Severely and Profoundly Handicapped has been formed (Haring, 1975a)
3. The Bureau of Education for the Handicapped has cited as one of its top priorities the education of the severely and profoundly handicapped (Martin, 1975).

The Need for Trained Teachers

As the focus changes from custodial care to education and training for the severely and profoundly handicapped, highly trained teachers will be needed in public education.

> Here the onus of responsibility rests on teacher training institutions to design and implement teacher education programs specifically aimed at preparing persons to further develop multiply handicapped, severely retarded children. (Smith & Arkans, 1974, p. 501).

The number of trained teachers needed will be substantial, especially if one accepts a teacher/student ratio of no more than 1:5. This ratio is tenable when the learning, behavioral, and physical characteristics of the severely and profoundly handicapped are considered.

When estimating the number of teachers needed, the necessity of early intervention should be considered also. Even the more profoundly handicapped preschooler has the potential for learning, among other things, visual and auditory awareness, motor control of the head and trunk, and a rudimentary understanding of vocabulary. It should also be noted that early intervention can prevent the development of abnormal body structure from prolonged periods of bed rest (Luckey & Addison, 1974). In many cases early correct body positioning can prevent physical deformities frequently found in older handicapped individuals (Robinault, 1973).

On the other end of the life continuum, continued education and training during adulthood is imperative to maintain and expand the skills of work productivity and daily existence. It has been recently demonstrated that the markedly handicapped can learn to participate in work activities (Gold, 1973) previously thought beyond their capabilities.

In essence, a teacher/student ratio of 1:5 and the necessity of life long intervention will require that institutions of higher education train teachers competent to aid the growth of severely and profoundly handicapped individuals. In addition, it should be noted that (a) recent medical advances are keeping many children with serious handicaps alive who would otherwise not have lived, and (b) today there is virtually a void of trained teachers of the severely and profoundly handicapped.

Training Requirements

Universities have focused their teacher training in special education toward the mildly and, in some cases, the moderately handicapped. The potential special education teacher has received more diagnostic techniques and remediation approaches than the regular classroom teacher. With few exceptions, the basic techniques and materials presented teachers of the mildly handicapped and teachers of so called "normal" students have been the same with changes mainly of emphasis.

The functioning level of the severely and profoundly handicapped will require a wide deviation from what has been the mainstay in university teacher training. The following is a discussion of the training needs of prospective teachers of the severely and profoundly handicapped to provide an impetus for critical evaluation of the content of some elements necessary in teacher training. Discussed here are: (a) diagnostic evaluation, (d) curriculum, (c) methodology, (d) interdisciplinary team work, (e) field experience, (f) parent training, and (g) prosthetic aids.

Diagnostic Evaluation

The standard diagnostic and evaluation tools presently employed with the mildly handicapped such as readiness and achievement tests will generally be of little use to teachers of the severely and profoundly handicapped. Even the social maturity tests at the preschool level are frequently too high and/or have too large a gap between skills to accurately assess the functioning level of many severely or profoundly handicapped individuals for training purposes.

Due to the infantile functioning level of some of these individuals and the small achievement increments made over time, it is imperative that teachers of the severely and profoundly handicapped have a thorough working knowledge of human growth and development patterns from birth through beginning preschool as well as the basic readiness and early academic learning process. A high degree of insight into child development during the infancy stage such as visual tracking, responding to stimuli, lifting head, reaching for objects, grasping objects and turning over is needed since it is within this range of functioning that teachers will find many of the severely and profoundly handicapped.

These diagnostic evaluation needs require going beyond the present educational literature. Teachers must become aware of the psychological and medical information concerning infancy and early childhood development. Developmental instruments such as the Gesell Developmental Schedules (1947), the Cattell Infant Intelligence Scale (1940), the Bayley Infant Scales of Development (1969), the Denver Developmental Screening Test (1970), and the Piagetian based Albert Einstein Scale of Sensory-Motor Intelligence (Corman & Escaloma, 1969) will need to be closely examined. Most teachers are not aware of, for example, the developmental sequence for evaluating and/or teaching such skills as ambulation.

It is obvious that educational diagnosis and evaluation as we know it for the mildly handicapped and normal student will need modification for teachers of the severely and profoundly handicapped. It should be noted that a few special educators and psychologists (Balthazar, 1971; Sailor & Mix, 1975) have already begun developing diagnostic and evaluation instruments for the severely and profoundly handicapped.

Curriculum

As in all educational situations, the goal of the curriculum for the severely and profoundly handicapped is to move each individual to higher levels in the developmental sequence. The major differences relate to the range of the developmental functioning levels of concern. In the education of mildly handicapped and normal students, the major focus is on readiness for and achievement in reading, writing, arithmetic and social skills. With the severely and profoundly handicapped the curricular emphasis is on response to environmental stimulation, head and trunk balance, sucking, swallowing and chewing, grasping, movement of body parts, vocalizations, and at higher levels, imitation, language acquisition, self feeding, ambulation, dressing skills, toilet training, social/recreational behaviors and functional academic skills. Vocational skills, as with any individual, are important. When individuals reach this level, the bagging of golf tees, stapling packages, or more complex tasks such as the assembly of 14 piece bicycle brakes (Gold, 1973) are a few of the possible additions to the curriculum.

The curricular needs are widely divergent from the mildly handicapped or normal child. Despite the newness of this area, ideas and materials for curricular development are becoming available (Ball, 1971; Meyers, Sinco & Stalma, 1973.)

Methodology

Presently educators and psychologists are finding that the behavior modification methodology is very effective with the moderately and severely handicapped (Haring & Phillips, 1972) with many implications for teaching the most profoundly handicapped.

When classroom teachers have used behavior modification, the stress has been on the manipulation of stimuli that occur after the response to increase or decrease the intensity, duration, or frequency of responses.

With the severely and profoundly handicapped, teachers must continue to apply reinforcement principles. They will need only to become more sophisticated. The concepts of reinforcement sampling, discrimination training, generalization, stimulus control, shaping, backward chaining, contingent aversive stimulation, prompting, fading, modeling, etc. will have to not only be understood, but also incorporated into daily teaching sessions. In addition, the manipulation of antece-

dent stimuli will be essential. With the severely and profoundly handicapped, responses will not only have to be shaped but elicited. The teacher who waits for the emission of a particular response in order to apply reinforcement principles will waste much precious learning time. Also, knowledge of the most efficient methods for modifying behavior is imperative in controlling severe management problems. Finger chewing, headbanging, aggressing toward others, and feces throwing can quickly and totally disrupt classroom learning.

The precise measurement of behavior will take on new importance. Progress with the severely and profoundly handicapped may not always be easily recognizable. The morale of the teacher as well as plans for the next teaching session will depend upon correct identification of progress.

Perhaps the most important skill that teachers must have is the ability to task analyze behavior. It has been found that breaking down tasks into small sequential steps enhances the speed and quality of response acquisition in the severely and profoundly handicapped (Brown, 1973).

Interdisciplinary Teamwork

The importance of interdisciplinary teamwork becomes evident when the daily life of the severely and profoundly handicapped is examined. Many severely and profoundly handicapped individuals live an extremely brittle medical existence. They frequently are under the supervision of medical staff; sometimes gaining nourishment through tubes, urinating through catheters and/or living with reduced spasmodic seizures by continuous medication. (These children will challenge the literal meaning of "zero reject." Here we are referring to community-based education in hospital wards or schools as well as special classes, special schools, and residential centers.)

Due to multiple handicaps, the activities of these individuals must be carefully considered by physicians as well as by physical and/or occupational therapists in terms of strenuousness, bone and muscular involvement, and body positioning. Misunderstanding or overlooking an individual's needs may cause irreparable damage. In addition, these individuals may suffer from partial or total blindness, deafness, and/or paralysis which further complicates the communication process to which opthalmologists, audiologists, and speech clinicians can contribute their expertise. No one person can be expected to possess all the expertise required to facilitate the development of a profoundly retarded child who is also blind, deaf, and/or cerebral palsied.

Some supportive and ancillary personnel may be unfamiliar with the characteristics of the severely and profoundly handicapped. The school counselor, assistant principal or itinerant art teacher, for example, may never before have worked with children who eat their crayons, self mutilate, stare at their left hand for hours, and/or indiscriminately wail throughout the day (Sontag, et al., 1973).

Receiving medications is a frequent occurrence with the severely and profoundly handicapped. A child who is alert and responsive one day may be docile and unresponsive the next. In their teacher training sequence, teachers will need to be made aware of the reasons certain drugs are administered and their side effects.

These and other aspects will have a bearing on how the teacher works with such individuals. The teacher will be required to design an educational program, but not be the sole contributor. The element of interdisciplinary teamwork is mandatory.

Because of this need for teamwork, it is important that teachers be trained to communicate efficiently and effectively with other disciplines. Courses in speech acquisition and psychology will be needed. Exposure to clinical syndromes and the medical aspects of physically handicapping conditions will also enhance the teacher's ability to communicate.

Finally, it is imperative that teachers be thoroughly aware of their own and other team members' roles. They must know their particular areas of competency as well as the compentencies possessed by other professionals and be able to conduct their duties in terms of them.

Extensive Field Experience

Teachers of the severely and profoundly handicapped will be faced with a population previously considered untrainable. Gains may be slight and tediously slow in coming. This combined with the precise skill application required to effect gains emphasizes the need for immediate feedback and support while actually working with children.

Field experiences will permit prospective teachers to determine if they have the abilities

and attitudes required. The enhanced precision required in the teaching process will be too difficult for some; the development of appropriate attitudes will be impossible for others. For example, an attitude that permits *normal* risk taking is essential. As for any child, the severely and profoundly handicapped must be allowed to experience pleasure from self discovery even at the risk of minor bumps and bruises. Field experience can assist prospective teachers in developing attitudes that will avoid overprotection.

A teacher training program which includes curriculum, methodology, and field experience may help us avoid some of the pitfalls experienced in the earlier training of teachers for the mildly and moderately handicapped (e.g. knowledge of definitions and characteristics, but no teaching skills). Hopefully, we can reduce the frequency of the first teaching day syndrome: "I know the definitions and characteristics, but what do I do?"

Parent Training

With the severely and profoundly handicapped the training of parents and/or parent surrogates by the teacher is an important factor. Without the necessary information and support, home care will be beyond the abilities and tolerance level of many parents.

Since the teacher is most closely involved in the overall daily planning and training he/she will be called upon to provide information and support to the parents or parent surrogates. With strong lines of communication between the school and home, a consistent and comprehensive 24 hour program can be devised and implemented.

In order for teachers to assume the role of parent trainers, they must become knowledgeable in several areas. This constitutes another component not previously emphasized in many teacher training programs. A few of the specific competencies needed by teachers to be effective in parent or parent surrogate training include:

1. Explaining student abilities and progress to help parents overcome the problems of under or over protection and inappropriate expectations (either too high or too low);
2. Training parents to deal with explosive, stereotype, self stimulative behaviors as well as appropriate motor responding and verbalization behaviors. This, of course, will make home living a more realistic alternative for the handicapped child, siblings and parents;
3. Being a source of information concerning community resources that can provide health care, social interaction, recreation, etc. This will also include knowledge concerning foster and group home alternatives for parents who are unable to cope with their handicapped child within the existing family structure;
4. Providing parents with knowledge of sources of special clothing and equipment that can aid in easing home care problems and encourage greater independence and self care;
5. Training parents in lifting, carrying, and positioning the nonambulatory;
6. Training parents in techniques for fostering sensory awareness, motor development, communication, eating, toileting, bathing and dressing, etc.
7. Explaining the importance of having the nonambulatory child up and correctly positioned for part of each day in a chair, even if strapped in, rather than flat on his back in a crib or bed. (In addition to enhancing motor development, the child can see and respond to stimuli in his environment other than the ceiling.)

Use of Prosthetic Aids

In order to successfully deal with the severely and profoundly handicapped population, teachers must be well versed in the use of modification tools such as prosthetic aids. A prosthetic aid is a device used to modify an individual or environment so a previously handicapping condition can be bypassed or eliminated in a given set of situations. Smith and Neisworth (1975) list five broad categories of prosthetic devices. These are locomotion, life support, personal grooming and hygiene, communication, and household aids. It can be observed from these categories that the use of prosthetic aids can permeate almost every phase of life from breathing to brushing teeth to recreation.

Due to the high incidence of multiple handicapping conditions in the severe and profound population, many of them use one if not several prosthetic devices in their daily lives. Teachers of these children will find themselves in classrooms with such items as creepers, walkers, standing tables, cut out trays, splints, motorized beds, wheelchairs, built up and/or modified spoons, knives, and forks. In addition, special prosthetic devices will be used in getting some of these individuals to and from school (e.g. adjustable base lif-

ter). Teachers, when helping children load or unload from the transportation vehicle, will need to be familiar with these devices in order to avoid possible accidents. Potential teachers of the severely and profoundly handicapped should be provided the opportunity to acquire a strong working knowledge of prosthetic aids. They should know how to use and maintain the devices so maximum efficiency and effectiveness can be achieved in the classroom setting.

New devices are being designed to help modify the results of the handicaps of blindness, deafness, paralysis, and voice, muscular, and bone aberrations. As research, development, and use of these devices continues, the need for teachers to become familiar with them will increase.

Source of Expertise

We have discussed why and in what areas teachers of the severely and profoundly handicapped should be trained. Now the question is where will the universities get the expertise to train prospective teachers of the severely and profoundly handicapped?

Educators are rapidly gaining the legal right to provide education and training for the severely and profoundly handicapped. With or without this expertise, public schools will establish classes for the most profoundly handicapped. Colleges and universities will begin training teachers. We will accomplish the task of providing education and training for the severely and profoundly handicapped. However, if we are to do the most efficient and effective job, we must recognize our current lack of knowledge of training procedures and begin to correct it.

The recent work of Blatt and Garfunkel (1973), Bricker (1972), Brown (1973), Gold (1973), Haring (1975), Hayden (1975), Lent (1975), Sailor and Mix (1975), Tawney (1974), and others should serve as prime sources of reference for the identification of materials, techniques, and procedures found effective for training the severely and profoundly handicapped. In addition, the excellent work of prominent institution personnel (Azrin & Foxx, 1971; Bensburg, et al., 1965; Gardner, Brust & Watson, 1971; Luckey, Watson & Musick, 1968; Watson, 1967) should be closely examined.

This focus on available expertise does not minimize the need for further research and study to update and expand what is currently known. It is only to insure that these relatively early efforts are not ignored.

Although we are for the most part inexperienced in dealing with the severely and profoundly handicapped, public education does provide real advantages for this population. Through public education the severely and profoundly handicapped will receive, by the nature of the organizational arrangement, a considerable increase in environmental stimulation by such aspects as living in a community setting, being transported to and from school, and exposure to many normal activities throughout the day. For example, the simple act of being transported back and forth to school provides a wide array of experiences (e.g. active and/or passive interaction with people). It is this involvement in ordinary daily living (normalization), not our current expertise, that largely justifies community based public school education for the severely and profoundly handicapped.

Conclusions

Laws and court decisions have been and are being enacted that will mandate a right to education for the severely and profoundly handicapped.

> The right to education, if it is implemented, will bring into our special education orbit those children and adolescents who were not previously considered to have the necessary academic potential or even to be capable of acquiring the basic life skills for community living or who are not of the traditionally prescribed age for education. Many special educators never before saw them . . . They were invisible. (Goldberg &Lippman, 1974, p. 331).

Few teachers are trained to teach these children and few professors of special education are prepared to instruct teachers in educating the severely and profoundly handicapped. This is not to say we cannot do the job. We can and should. However, careful planning will have to occur, if we are to meet this new challenge.

Although laws are being passed to insure public school education for the severely and profoundly handicapped, little money is being appropriated for personnel training. This, of course, enhances the risk of repeating the same mistake made when we first began trying to meet the needs of the less markedly handicapped in regard to the use of ill prepared and unprepared teachers. Because of the pressure to provide special services to the

mildly and moderately handicapped, many teachers were not prepared for their jobs. Unfortunately, some handicapped children have suffered, as well as the overall reputation of special education. Although some states are just beginning to overcome the critical lack of trained and certified personnel for the mildly and in some instances the moderately handicapped, we will be faced with new demands for trained personnel for the severely and profoundly handicapped.

Unless adequate support is forthcoming for personnel training, classrooms for the severely and profoundly handicapped are likely to be staffed by untrained teachers. If this happens, these children may fail to progress in an educational environment. This could happen if untrained teachers establish babysitting centers or a watered down curriculum. The severely and profoundly handicapped do not need this kind of educational programing. They need well planned and designed programs developed by rigorously trained special education teachers.

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Special Education Administration Competencies Required of the General Education Administrator

ANN NEVIN

This study was conducted in the context of rapidly changing social policy concerning the education of handicapped children. The passage of Public Law 94-142, the Education for All Handicapped Children Act of 1975, requires immediate changes for all important sectors of the educational scene. Public school administrators are now required to provide appropriate individualized education programs for all handicapped children and to do so in ways that protect the children's procedural and substantive due process rights while providing for placement within the least restrictive alternative. The purpose of the study was to ascertain the competencies needed by general educational administrators to implement special education programs under the requirements of Public Law 94-142.

Procedure

A collaborative goal analysis model (Mager, 1972) was used to generate the competency statements. A jury was nominated by an advisory committee of persons in leadership positions in special education and educational administration organizations in Vermont. This jury generated a list of 47 competency statements, which was subsequently submitted to all superintendents, all assistant superintendents, one principal from each of Vermont's 56 school districts, and faculty members of the Special Education Department and Educational Administration Department at the University of Vermont. Those who responded were compared to nonrespondents according to three variables: size of school district, position, and presence of school district consulting teacher programs. Chi square analyses revealed no significant relationships.

The majority of respondents were males between 35 and 54 years of age who had earned at least a master's degree. They reported from 1 to 6 years in their current position and a common background as general educators. Fewer than 20% indicated other experiences (e.g., state department or professor roles). Course work reflected a common background in general education, learning theory, and systems theory, with relatively few respondents reporting course work in special education, vocational education, or rehabilitation.

The validity of the questionnaire was addressed through the comparison of respondents' scores on a 60 item concept assessment test and their respective actual proficiency ratings for related competency statements. Respondents with a low concept assessment score tended to rate themselves as low in actual proficiency for competencies related to those concepts, while respondents with high concept assessment scores tended to rate themselves as high in actual proficiency. It may therefore be concluded that respondents were accurate observers and reporters of their own proficiency for selected competency

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statements, at least as demonstrated by performance on a written test. This provides some assurance that the rating scales are valid indicators of respondents' views and increases the overall confidence in the results.

Each competency statement was rated according to three scales: (a) priority, (b) required proficiency to effectively discharge the competency as required in the respondent's position, and (c) actual proficiency in demonstrating the competency statement. The respondents were asked to evaluate the competencies in reference to their job responsibilities on a scale of 0 to 3, thus stressing the ordinal nature of the rating scales. The two extremes of 0 (not needed) and 3 (essential) were absolute, while the intermediate ratings (1 = useful, 2 = important) were intended to reflect potential minor and major impact on program effectiveness.

Results

Ratings were summed and divided by the total number of respondents to identify the rank order of importance. Among the 47 competency statements, 8 were rated essential (mean priority ratings ranging from 2.5 to 3.0); 33 statements were rated desirable (mean priority ratings ranging from 2.0 to 2.5); and 6 statements were rated useful (mean priority ratings ranging from 1.5 to 2.0). No statement was assigned the rating unnecessary (0 to 1.5 mean rating). Substantively, the statements that surfaced as essential concerned assuring due process, interpreting federal and state laws, using appropriate leadership styles, showing that records comply with due process and confidentiality requirements, resolving conflicts among program personnel, using evaluation data to make program revisions for exceptional learners, and determining staff functions and qualifications for educational programs for handicapped learners. Such competency statements may be characterized as advocacy and leadership functions as well as technical knowledge related to the handicapped child's educational program. By contrast, the six statements that surfaced as useful focused on the administrative functions of record keeping, communication/dissemination, and architectural or transportation requirements.

These results appear to be consistent with findings related to administration of special education. For example, the general education administrators in this study showed as much concern as special education administrators who tended to focus on the technical development, implementation, and content specification for monitoring special programs (Sage, 1968).

In addition to generating a list of prioritized competency statements, the study also identified training needs of the respondents. A training need was defined as any positive discrepancy between required proficiency (scale b) and actual proficiency (scale c). The number of respondents reporting such discrepancies was tallied for each competency statement, and a percentage of respondents reporting discrepancies was calculated. More than 40% of the respondents indicated training needs for eight competency statements. The greatest training need was reported for the competency statement involving maintaining knowledge of current trends, research, and programs for handicapped children. The next highest training needs were in the areas of keeping data based records for the handicapped student, planning programs, interpreting mandates, assisting in program redesign, assessing needs of the handicapped child, and using evaluation data for program revision.

The major conclusion related to training needs is the recognition by general education administrators of the need to acquire and maintain current knowledge of research, trends, and programs for the effective education of handicapped learners. This is consistent with the findings of other researchers who identified knowledge and research related activities as major tasks for special education administrators (Newman, 1970; Marro & Kohl, 1972). Similarly, superintendents of large city schools and professors of educational administration included knowledge and research related activities as critical aspects of competencies for effective school superintendents (Culbertson, Farquhar, Gaynor, & Shibles, 1969).

Discussion

Training programs can be evaluated on the degree to which trainees achieve the essential competencies. The relationship of training programs to increased performance in achieving important outcomes should provide important information for decisions related to type of training program and materials (formal course work or informal workshops); duration

of training (intensive 2 or 3 day seminars or semester or yearlong interactions with trainers); mode of training (simulation, didactic lecture, or on the job practice); and timing of training (preservice or inservice). Finally, the decision on who delivers instruction (teams of field personnel composed of both general and special educators, university faculty, individuals, or media) can also be assessed directly in terms of the achievement of competencies.

The fact that training needs were reflected for both cognitive and procedural competencies suggests that the training system should include both didactic and laboratory elements. It appears that inservice training school situations would be ideal. This suggests training systems that are negotiated carefully between field personnel and higher education.

Finally, it appears that general education administrators perceive that the degree of compliance with and the extent of commitment to the intent of the Education for All Handicapped Children Act of 1975 can only be demonstrated by each individual school district and can only be as great as the competencies of the personnel involved.

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III. Individualized Education Programs

Legislative Intent and Progress

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Abstract: Central to the provision of a free appropriate public education for all handicapped children in this country is the successful implementation of an individualized education plan for each child. This article addresses some of the concerns and some of the progress being made in implementing the statutory requirements of Public Law 94-142.

ONE of the more critical issues facing the broad area of special education is to change the ways educators and others view the needs of the handicapped.

Gotts (1976), at The University of Texas at Dallas, has referred to the personal and social consequences of innate or adventitious conditions that affect the individual's ability to interact with human and physical environments as being the most critical factors in this issue. As achievement and development are considered, comparison is between the present and potential achievement status, that is, discrepancy analysis. Learning or nonlearning takes place in all environments, not just in a formal school setting. Both the human and the physical aspects are influential in forming one's cognitive, affective, and psychomotor behaviors.

These factors have far reaching implications in early childhood education for the multiply handicapped and the more severely involved children and youths. Basically, one must consider developmental assessment and from that develop curriculum.

Recent Legislation

In less than two years' time, November 1975 to August 1977, three documents have been developed that have implications for profound changes in the ways educators and others will respond to the needs of the handicapped. These documents are both statutory and regulatory.

The Education for All Handicapped Children Act of 1975 (Public Law 94-142) is the statutory document that revises Part B of the Act. It stipulates that all handicapped children 3 through 21 years of age shall receive a free, appropriate public education with (a) first priority to children who are not receiving an education and (b) second priority to chil-

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dren inadequately served with the most severe handicaps.

P. L. 94-142 requires that each state and its local educational agencies must be affording a free, appropriate public education for all handicapped children 3 through 18 years of age no later than September 1, 1978. The Act further requires that such provisions be extended through age 21 by September 1, 1980, except when inconsistent with state law or practice or with any court decree.

Major requirements under Public Law 94-142 include:

1. Extensive child identification procedures.
2. Assurance of full service with a detailed timetable.
3. Guarantee of due process procedures.
4. Regular parent or guardian consultation.
5. Maintenance of programs and procedures for comprehensive personnel development including in-service training.
6. Assurance that special education is being provided for all handicapped children in each child's least restrictive environment.
7. Provision of nondiscriminatory testing and evaluation.
8. Policies and procedures that guarantee and protect confidentiality of data and information.
9. Maintenance of an individualized education program for each handicapped child.
10. Provision and guarantee of a free, appropriate public education at no cost to parents or guardian.
11. Assurance of a surrogate to act for any child either when parents are unknown or unavailable or when the child is a ward of the state.

Individualized Education Program

Central to the provision of a least restrictive environment for each child is the individualized education program. Congressional intent is clear. From the Conference Report on Senate Bill 6 (1975) there is the statement that the individualized education plan is to include

> a statement of the specific educational services to be provided to such child, and the extent to which such child will be able to participate in regular education programs. (p.H11214)

The language of the Act is specific in defining the components of the individualized education program. Section 602 (4)(19) states:

> (19) The term "individualized education program" means a written statement for each handicapped child developed in any meeting by a representative of the local educational agency or an intermediate educational unit who shall be qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of handicapped children, the teacher, the parents or guardian of such child, and, whenever appropriate, such child, which statement shall include (A) a statement of the present levels of educational performance of such a child, (B) a statement of annual goals, including short-term instructional objectives, (C) a statement of the specific educational services to be provided to such child and the extent to which such child will be able to participate in regular educational programs, (D) the projected date for initiation and anticipated duration of such services, and (E) appropriate objective criteria and evaluation procedures and schedules for determining on at least an annual basis whether instructional objectives are being achieved. (p. 4)

Elements

The elements of the individualized education program are:

1. It is a written statement.
2. It is developed in a meeting by a representative of the local educational agency or intermediate educational unit qualified to provide or supervise the provision of specially designed instruction to meet the needs of a handicapped child.
3. The meeting in which the individualized education program is developed shall include the child's teacher, the parents or guardian, and the child to be served, where appropriate.
4. The statement itself shall include (a) the child's present levels of performance, (b) annual goals including short term instructional objectives, (c) specific educational services to be provided and the extent to which the child can participate in the regular educational program, (d) the projected date for beginning services and their anticipated duration, and (e) appropriate objective criteria, evaluation procedures, and schedules for determining whether the instructional objectives are being met on at least an annual basis.

These specifically stated statutory requirements are the minimum that may be considered for an individualized education plan. They are safeguards to assure that a written plan will be developed by an educator with input from the child's teacher and parents, and where appropriate the child. As promulgated, the Rules and Regulations (Education of Handicapped Children, 1977) set forth in Section 121a.346 the content of the individualized education program. The regulatory language repeats verbatim the statutory requirements for the IEP.

In order to receive funds under Part B of the Act for any fiscal year, each state must submit an annual program plan to the US Commissioner of Education through its state educational agency (p. 42480). The Fiscal Year 1978 Annual Program Plan Amendment (1977) is the third document having implications for change. Regarding the individualized education program, it states:

> Present a copy or draft of the policies your State will utilize to implement the requirement that local agencies will maintain individualized education programs and establish, review and revise individualized education programs. (p. 9)

A further requirement is:

> Describe the procedures the State Education Agency will undertake in implementing the Individualized Education Program policy. (p. 10)

These three interrelated documents, Public Law 94-142 as the statutory instrument, the Rules and Regulations as the regulatory instrument, and the Annual Program Plan as the instrument to guide the states in their implementation, are the bases for change in education for handicapped children.

These documents require a specific focus on the individualized education plan. Diagnostic and developmental data should be available to those who will develop each plan. These data will allow them to understand the child's unique learning needs and characteristics and enable them to meet those needs and characteristics. The individualized education plan provides a basis for planning for the receiving teacher. It does not provide the specifics for day to day teaching. Since each plan is specific to a given child, the basic data on which it is predicated must be adequate and the receiving teacher's skills must be sufficient to allow for analyzing and interpreting the behavior of a child to facilitate individualized planning based on the targeted objectives of the plan.

The individualized education program protects both the child and the teacher when the teacher assumes responsibility for questioning the plan, for collecting data on which to modify the plan, and for one to one involvement with the child.

Public Law 94-142 Requirements

Public Law 94-142 requires at least an annual updating of each individualized education program. For all but the minimally handicapped this may be too infrequent. There is need for ongoing developmental assessment that focuses on areas needing obervational data, analysis, and interpretation. The majority of teachers and other educators who will develop individualized education programs are already employed. Many are not trained to plan and program to meet the specific needs and unique learning characteristics of children. There are many, including educators, who do not accept the fact that all children, no matter how profoundly involved, can learn if the teacher is focused on the child's needs and is clear about what must be done with the child.

Implementation is not a workbook or curriculum match with the child. Such an approach nullifies the teacher's professional role. Available software is not this precise nor are the techniques for the matching of child and materials. The individualized education plan is not a full and sufficient guide to instructional strategies nor is it a series of lesson plans. In implementing the plan for more severely impaired children, many of the developmental precursors are not understood except in broad steps, that is, the discrete steps in development are not agreed upon by professionals. The less certain one is of the data on which an individualized education program is based, the more critical it becomes to review and modify the plan on a periodic basis. Many individualized education plans will require extensive availability of materials and equipment. Access to these still is problematic in some areas. There are time limitations for individual teachers in relation to the teacher-pupil ratios being imposed by local education agencies.

Conclusion

It should be clear that developmental assessment is fundamental to appropriate planning of an individualized education program. The entire area needs further exploration and development. Diagnosis and assessment consider the ideal, the best possible approach for each child. The plan becomes the practical statement for what can be carried out in terms of available resources. These include personnel in the schools, funds available for a program, and community resources. There will be choices necessary due to limitations in each of these. Teachers need to know which objectives must be given priority as critical to the child's integrative functioning. In practice, the teacher becomes the child's advocate and in a sense the challenger as well as facilitator for implementing the child's individualized education program. None of these facets of the teacher's role can be fully realized without administrative support.

Simply stated, a child's least restrictive environment is the direct outgrowth and result of successful implementation of his or her individualized education program.

As implementation of the requirements of Public Law 94-142 proceeds, a majority of the problems encountered will be administrative. Materials and equipment availability at local educational levels is a function of administrative priority. The training of regular and special educators in the regular-special education interface becomes critical since each child's least restrictive environment is the direct outgrowth and result of successful implementation of his or her individualized education program.

As a part of the effort to place each handicapped child in his or her least restrictive environment, the Bureau of Education for the Handicapped, through its Division of Personnel Preparation, has recognized the importance of this training for the regular-special education interface and allocated funds for it since fiscal year 1974.

In a recent discussion, Hays (1976), who was involved in the Richardson, Texas Independent School District's implementation of least restrictive environments beginning in 1970, indicated that

> by far the biggest change has been in the area of the regular classroom. This activity has provided . . . a tool and a philosophy for individualizing programs for all children. The same concepts and the same vehicles are now being used for looking at the child in the regular program and making individualistic decisions about his/her education. (p. 49)

Appropriate implementation of Public Law 94-142 will require the concerted effort of many individuals—general and special educators and administrators, a myriad of support personnel, parents, siblings, and the children themselves.

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Issues Regarding the IEP: Teachers on the Front Line

JOSEPHINE HAYES
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Each school year brings with it significant dates to be placed on the calendar by professionals. This school year and next, two dates emerge as being critical for any professional who provides special education or related services to handicapped children. The first significant date, last October 1, 1977, has come and gone. On that date an individualized education program (IEP) had to be developed for each eligible handicapped child in order to be counted for purposes of funding in compliance with the Education for All Handicapped Children Act of 1975, Public Law 94-142. The forthcoming date to remember will be September 1, 1978. On that date each local, intermediate, and state education agency must provide a free, appropriate public education to each handicapped child or stand in violation of the rights and protections set forth under federal law, the Education for All Handicapped Children Act and Section 504 of the Vocational Rehabilitation Act of 1973, Public Law 93-112.

The October date has passed. As the new year begins, it is critical to look to September and identify what changes have been made for handicapped children and what changes yet remain so that they will be afforded the rights guaranteed in federal law. Professionals on the front line must respond in order to fulfill their responsibilities.

Since the passage of Public Law 94-142 in late November 1975, education agencies have undergone numerous policy and procedural changes. These changes have in turn generated considerable dialogue, both positive and negative, in communities and in faculty lounges across the country. The key elements of Public Law 94-142 are often misunderstood or little attempt is made to relate those key elements to the IEP. This article addresses this concern and explores how Public Law 94-142 makes teachers responsible and accountable for assuring that each handicapped child receive the required special education and related services set forth in the IEP.

Federal IEP Requirements

Public Law 94-142 requires that each eligible handicapped child receive an education designed to meet that child's unique learning needs. This specially designed instruction must be provided at no cost to the parents. In fact, the statute specifically requires the development of the IEP in order that the handicapped child receive an appropriate education. Therefore, the IEP becomes the cornerstone of the law and the management tool that parents, teachers, and other professionals, as well as the eligible student, can refer to when questions arise concerning resources or educational goals.

Section 504 of the Vocational Rehabilitation Act of 1973 states that the IEP, as required in Public Law 94-142, is one way to document assurance of an appropriate education. While we know that a written document must be produced according to federal requirements for every handicapped child, this requirement is not necessarily new. Many states have had some requirements to provide an individualized and appropriate or suitable education for a number of years. However, for teachers no doubt experiences have occurred over the past year where many procedures have changed for identifying and placing handicapped students. Teachers can get discouraged as an administration changes

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procedures that result in new or revised reports from new teaching staff. Therefore, teachers must be cognizant of the critical requirements of federal law and understand how those impact on their professional behavior. For that reason, several significant components of Public Law 94-142 have been selected for discussion here.

Least Restrictive Environment

One provision of Public Law 94-142 is the concept of placement of a child in the *least restrictive environment*. Too often educators interchange this new term with an old one—*mainstreaming*. Public Law 94-142 is not a mainstreaming law. The term mainstreaming does not appear in the law. Yet, this term has often evoked confusion in the profession and overreaction from the education community as a whole. If the term mainstreaming is phased out because of the different interpretations for everyone hearing and using it, regular educators may have a clearer understanding of what appropriate education for handicapped children in the least restrictive environment means. A word change alone is not enough.

Teachers must consciously change their thinking on how handicapped children receive special education and related services. Historically, children who required special education were pulled out of the regular program and put into self contained classes. This was too often an all or nothing approach since children either fit the program or they did not qualify for services. As early as 1961, Deno's (1974) cascade of services showed us that the continuum concept must be in effect in order to assure a range of appropriate options. The least restrictive environment provision requires that placement decisions be made on the basis of the individual's needs. No child can be removed from regular class participation any more than is appropriate for that child and Public Law 94-142 requires documentation in the IEP of the extent to which the child can participate in the regular program.

For many years, handicapped children were denied participation in regular physical education or vocational education programs. Annually, many teachers would negotiate with their colleagues to permit access for their handicapped students to these programs. The federal laws now guarantee that a handicapped student can not be discriminated against and must have access, where appropriate for the child, to physical education and vocational education programs, specially designed if necessary. In addition, the least restrictive environment provision means that handicapped children have access to the variety of educational programs and services available to nonhandicapped children such as art, music, industrial arts, and consumer and homemaking education. For teachers, this expands the programing options for their handicapped student on a systematic rather than random basis.

Procedural Safeguards

Due Process. A second requirement of federal provisions regards the necessary procedural safeguards established to ensure that handicapped students receive a free, appropriate public education. Reinforcing Constitutional guarantees, Public Law 94-142 sets forth procedures to ensure that due process is afforded each handicapped child at every point educational decisions are made. As soon as a child is referred for potential special education and related services, parents and teachers must be involved. Teachers who either initiate the referral and/or currently teach the child must document what interventions in learning have occurred for that child and identify the child's education strengths and weaknesses. As new assessments are conducted, the parents must be informed as to what information will be collected and how that information will be used. School district personnel have, over the past few years, made significant progress in informing parents of what is being done "to" their child. Emphasis needs to be placed on the "whys." When parents and teachers work together from the point of referral, few surprises occur as the IEP is developed.

Due process affords parents the right to a hearing if they disagree with the written IEP. When this occurs, and the procedures vary from state to state, the appeals process begins. The child shall remain in the current placement until a decision is rendered as to the appropriate program for the child. Just as teachers must be involved as the IEP is developed, they may also be involved when that IEP is being appealed. Minimally, the educa-

tional assessment information and reports that teachers have written become part of the evidence used at the hearing. In some instances, teachers will be requested to appear in support of the professional reports made. Occasionally this request to appear comes from the parents rather than the administration. A teacher's role has been and must continue to be to make sound professional decisions and professional judgments for each handicapped child. If these recommendations are judicious, then no teacher should have cause to worry about the hearing process. It is important to retain the child-advocate perspective rather than engage in adversarial relationships.

Confidentiality. Another procedural safeguard ensures the confidentiality of all the reports and records pertinent to the education of each handicapped child. While the IEP and all of the documents used to develop the IEP are confidential, parents and the child of majority age must be informed of their right to request access to all such records. This has implications for how each teacher will record, store and retrieve all personal and professional records.

Personnel Development

A third provision of Public Law 94-142 has direct implications for every regular and special educator working with handicapped children. Each local education agency must specify in writing the procedures to be used in the local implementation of the comprehensive system of personnel development established by the state education agency. Essentially, the federal law requires that inservice training be provided to both regular and special educators "and that activities sufficient to carry out this personnel development plan are scheduled" (Public Law 94-142, Final Regulations, Sec. 121a.380, 1977). Teachers must have input into the planning and designing of the personnel development activities so that the inservice training will be relevant to teacher needs. The entire process of developing IEP's requires some expanded roles and responsibilities of teachers. Competencies and skills required by teachers to successfully develop and implement each IEP may be a major area identified for purposes of professional development.

The policy areas of Public Law 94-142 presented here were selected to identify teacher issues that are peripheral to but necessary requirements of individualized education programs. Many changes regarding IEP's have occurred in schools to date. Teachers must review the basic IEP requirements to ascertain who must meet to develop the IEP and determine what constitutes a written document.

Meeting to Develop the IEP

The purpose of developing the IEP is to set forth in writing a commitment of resources that indicates what special education and related services will be provided to meet each handicapped child's unique needs. The IEP is a management tool that allows parents, teachers, and administrators to know what educational services have been committed. The purpose of an IEP is not to plan the total instruction of the handicapped child. Good instructional planning on a day to day and week to week basis is not a new phenomenon to competent teachers. Caution must be exercised that teachers and other support personnel recognize the distinction between instructional planning and the requirements as set forth in federal law that become the individualized education program (Torres, 1977 a, b, c). Otherwise, teachers may be trapped into documenting too much information in the meeting to develop the IEP. Public Law 94-142 (1975) requires that the IEP be

> developed in any meeting by a representative of the local educational agency or an intermediate educational unit who shall be qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of handicapped children, the teacher, the parents or guardian of such child, and whenever appropriate, such child. (Sec. 4(a)(4)(19))

Translating this federal requirement into practice requires decisions to be made at the local level regarding teacher participation in the IEP meeting. Difficulty in teacher participation in the development of an IEP frequently comes about in two ways. First, many state and local education agencies have tacked the IEP meeting on top of an already existing system of evaluating and placing handicapped children. The results too frequently find a cadre of people assembled

including health care personnel, psychologists, social workers, administrators, perhaps each teacher that works with the child, and the parents.

The second difficulty regarding teacher participation occurs more often at the secondary level. Typically, a student may have four or five regular education teachers as well as at least one special educator. Which teacher(s) should be designated to participate in the IEP development? The authors would insist that those decisions must be made on a per child basis, with priority given to the teacher(s) who has the primary responsibility for implementation of the IEP. Recognizing that often the logistics of release time during school hours is a complex problem, particularly at the secondary level, the federal law does not require that all of the child's teachers develop the IEP. Clearly, some mechanism must exist for two way communication involving all IEP implementers to guarantee an exchange of relevant information. It is critical for teachers to have input into and understand the policy and procedures used in their district governing appropriate teacher participation.

The Written IEP

As each teacher knows by now, the content requirements of the IEP as set forth in Section 4(a)(4)(19)(A-E) of Public Law 94-142 (1975) are straightforward. Each IEP must be written and must contain statements regarding the following information:

1. Child's present levels of educational peformance.
2. Annual goals, including short term instructional objectives.
3. Specific special education and related services to be provided to the child and the extent to which the child will be able to participate in regular educational programs.
4. Projected dates for initiation and duration of services.
5. Appropriate objective criteria and evaluation procedures and schedules for determining, on at least an annual basis, whether the short term instructional objectives are being achieved.

The responsibility for accomplishing the actual writing task itself is not federally legislated. Alternative arrangements may be made for recording the information. This task is not necessarily a teacher responsibility. Teacher input into district procedures regarding this responsibility is desirable. It is critical to remember that the IEP document is not totally new as a result of Public Law 94-142. In fact, 27 states have had for several years some sort of requirements for a written document for each handicapped child. (CEC Policy Research Center, 1977.)

Accountability and Teacher Advocacy

Much anxiety arises as teachers frequently perceive the IEP as an accountability measure that can be used against them if the student does not attain the specified annual goals or short term objectives.

It is imperative in viewing the IEP as a management tool that teachers, parents, and administrators realize that specific resources (i.e., time, personnel, money) are being committed by the education agency to the handicapped child vis-a-vis the IEP. But what about teacher liability for student mastery of skills? Public Law 94-142 does not require that any teacher, agency, or other person be held accountable if a child does not achieve the growth projected in the IEP. Clarification in the commentary that accompanies the regulations of Public Law 94-142 states that the intent is

> to relieve concerns that the individualized program constitutes a guarantee by the public agency and the teacher that a child will progress at a specified rate. However, this section does not relieve agencies and teachers from making good faith efforts to assist the child in achieving the objectives and goals listed in the individualized education program. Further, the section does not limit a parent's right to complain and ask for revisions of the child's program, or to invoke due process procedures, if the parent feels that these efforts are not being made. (Public Law 94-142, Final Regulations, Sec. 121a.349 (Comments), 1977)

While teachers may not be held responsible for pupil attainment of the annual goals and short term objectives, teachers are now, more than ever, in a situation where they can positively advocate for those services they need as required and specified in the child's IEP. However, as child advocates, teachers must

be cognizant of the potential conflict they are placed in when having to confront the system. When evidence of program weaknesses or lack of services promised exists, the teacher, who is on the front line, is usually the first person to recognize the breakdowns in the system. It is at this point that teachers must place their responsibility to the children they serve ahead of all other concerns by responsibly advocating for the necessary remedies. Perhaps the most appropriate style of advocacy can be termed cooperative advocacy whereby all parties (i.e., teachers, administrators, support personnel, parents) contribute to make the system responsive to the child and ensure that the resources committed in the IEP are provided.

The quality of educational services for handicapped children resides in the abilities, qualifications, and competencies of the personnel who provide those services. Professionally trained and competent personnel engaging in positive public relations with parents, with other educators, and in the community at large are a force not to be dismissed lightly.

In the months to come, many opportunities for the exercise of teachers' most persuasive efforts to protect children's best interests will undoubtedly present themselves. Special educators will have the responsibility to share their specialized knowledge concerning handicapped children. They must be responsive as regular educators struggle with the implications that the least restrictive environment has on their class. Special educators must be able to explain why the child does not have to be removed from the regular class unless there are compelling reasons for doing so. Teachers must advocate for appropriate resources needed as a result of IEP requirements for special education and related services rather than being forced to make recommendations based on existing categorical programs. Finally, teachers must work toward changing attitudes about special education by focusing on the educational and developmental needs of handicapped children (CEC, 1976). These issues must be positively integrated into all aspects of professional activities in order to protect each handicapped child's right to a free, appropriate public education. Unless these rights are protected now, then potentially much may be lost later at the collective bargaining table.

Changing Roles and Responsibilities

With the changing times, modern technology, and the age of accountability, it is particularly important that teachers understand how their roles have changed and their responsibilities have increased. It is no longer enough to know how to competently work with students and guide their learning. Teachers must be informed, knowledgeable, and responsible to assure that they are contributing to the free, appropriate public education that each handicapped child is now guaranteed.

Consequently, teachers must be informed regarding the child rights and protections that exist. They have the right to be kept informed on relevant interpretations made by the courts or by policymakers at the federal, state, or local level that impact on a teacher's role in developing and implementing the IEP. They have the right to inservice training to prepare themselves for IEP participation. Teachers have the right to know current administrative procedures employed in their education agency and they need to understand how to impact on that system to effect positive and appropriate educational services through the IEP for each handicapped child. To that end, teachers also have the responsibility to seek out accurate and reliable information from a variety of sources regarding their professional rights and responsibilities in the development and implementation of the IEP. Because second hand information can sometimes be incomplete, misleading, or even faulty, teachers have a responsibility to collect accurate information. Nothing serves to erode a professional's credibility faster than inaccurate information.

Resources

There exists today a myriad of information regarding federal, state, and local policy requirements for the appropriate education of handicapped students. It is recommended that teachers make use of a variety of sources to obtain information that is most relevant to them. Their professional organization, The Council for Exceptional Children, has and will continue to make available to professionals and parents accurate information and policy interpretations. The authors have identified several policy documents that every teacher should have and should be familiar with. Minimally, these are as follows:

1. Public Law 94-142 and Section 504 of Public Law 93-112. Copies of both the federal statutes and regulations may be obtained from a local congressperson. Teachers should read firsthand what others are interpreting for them.
2. A copy of the state's special education laws and regulations.
3. A copy of the local application, which may be obtained from a special education administrator. Public Law 94-142 requires that each education agency assure to the state that a free, appropriate public education is provided every eligible handicapped child. A description of the policy methods and procedures must be described. Teachers may want to pay particular attention to the following sections: facilities, personnel, and services; personnel development (inservice training); parent involvement; IEP; procedural safeguards; and participation in regular education programs.
4. The state plan, which may be obtained from the state department of education. Each state education agency certifies to the federal government the assurances that every handicapped child in the state is receiving appropriate special education and related services. Teachers may want to review the following sections to determine where their district stands in relation to the rest of the state: comprehensive system of personnel development; IEP; procedural safeguards; least restrictive environment; and identification, location, and evaluation of handicapped children. Teachers may request permission to Xerox these sections or write to their state consultant for these portions.

A comparison of the above policy documents will enable teachers to better understand the background behind administrative decisions; the intent of school policy; and the distinction between federal, state, and local requirements in order to better advocate for policy change or better implementation as needed.

Conclusion

In the final analysis, it must be remembered that professionals themselves, both directly and through professional organizations, have largely influenced landmark federal legislation. While selected issues relating to the individualized education program have been discussed, others have yet to be identified. What remains to be known as September approaches is how teachers on the front line will continue to respond to the IEP mandates of Public Law 94-142.

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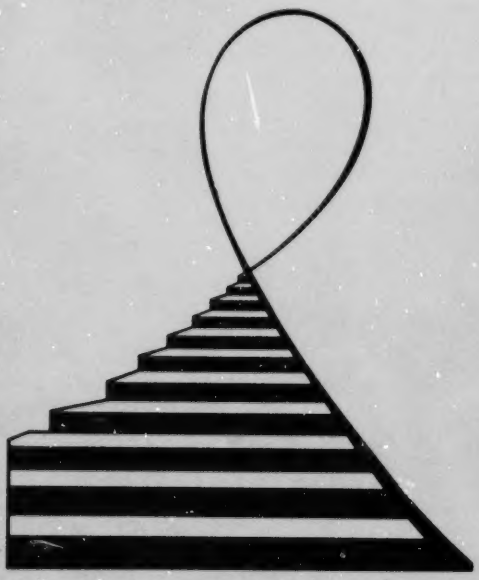
Staying Out of Jail

MAYNARD C. REYNOLDS



About half of my special educator friends these days seem to be out giving lessons to the masses on individualized education programs (IEP's). Without even trying, I have been shown at least six sets of transparencies, listened to endless audio cassettes on the requirements of Public Law 94-142, and I have been guided through several versions of "sure fire" forms to satisfy all of the new regulations.

What I see and hear seems well designed to keep teachers out of jail—to comply with the law, that is—but usually I sense little vision of how people might come together creatively to design environments for better learning and living by handicapped students.

It is a worry that all of this ballooning activity is coming just as the basic renegotiation of the relations between regular and special education is also underway. Many difficult role changes can be anticipated. There is a great deal on the agenda for renegotiation, such as alterations in child study and placement procedures. With so much at stake, it is very important to do things *right!*

The danger is considerable, I think, that some communities will go through the motions on IEP's, and consume a great deal of time and resources, but will advance the cause of the handicapped by little or not at all. In the name of due process they may well undertake more process than is due, letting bureaucratic machinations overtake and mutilate the lofty purposes and enterprise envisioned by the makers of Public Law 94-142. I am haunted by Judge Bazelon's (1973) description of the juvenile justice system in the post-Gault period, that is, in the years since full process rights were accorded to juvenile delinquents. Bazelon characterized the system as expanding rapidly in formal procedure, but on the whole without improving diagnosis, therapy, and education. Indeed, he judged that community attitudes toward juvenile delinquents might have become more vengeful.

From *TEACHING Exceptional Children*, Spring 1978, pp. 60–62.
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I am haunted also by what has happened since 1965 in meeting requirements for the evaluation of all the new federal programs.* We have delivered almost total nonsense in the dozen years of compliance with that requirement, but at very high expense in time, dollars, and tarnished reputations. The point is that attempts for massive implementation of "good ideas" do not always work out. Thus, we ought to reflect a bit as we set off on a massive wave of IEP production.

DOING BETTER THAN JAIL

It seems important to try to specify the conditions under which crash efforts are most likely to have good effects. I suppose that if the problem or the new policies could be structured very simply, for example, "no racial segregation in seating on public buses," a strong legal imperative would do the job in a hurry. But, if the problem has some technical complexity, as in the case of better planning and programing for handicapped students, the solution is likely to be complex.

Progress in trying to implement massive new procedures is best assured when the legal imperative is matched with a strong developmental effort and the latter reaches down to fundamentals rather than just surface compliance efforts. This proposition puts emphasis on identifying the truly pivotal or fundamental ideas in the exercise; it calls for identifying the relevant knowledge bases and then undertaking a penetrating effort for development and training.

*The requirement, as part of the Elementary and Secondary Education Act of 1965, is that all federally supported education programs be evaluated regularly.

GETTING DOWN TO FUNDAMENTALS

So, let's try it! What are some of the fundamental ideas in the IEP context? Where can we go for help of a deeply penetrating kind in shaping the IEP enterprise? Staying out of jail has its importance, of course, but making good sense and starting long range improvements are even more important. Following are a few topics and ideas which, from this writer's perspective, will lead to those long range improvements.

Working with Parents

A limited compliance effort with the regulations on parental participation might be oriented simply to getting parents to "sign off" on the IEP's. Needless to say, much more could and should be involved, such as serious efforts to deal with the fears and hostilities that parents sometimes harbor, building toward trusting relationships between teachers and parents, and working toward strong mutual commitments to build healthy environments for children. Sociologists can help us to understand the difficulties of individual and family interactions with large bureaucracies; psychologists can help us with clinical skills for conferences (e.g., in readiness to share decision processes genuinely with parents, skill in listening, and sharing different perspectives about individual children).

Needs also extend to parents of nonhandicapped children; they may well be the least involved group at present. All parents will need help to understand what is happening in the schools in response to Public Law 94-142 and the new experiences their children may be having. The teacher of a new class for profoundly handicapped children in a regular school building reported this beautiful experience just this fall. A nonhandicapped third grader came by the classroom door and asked the teacher, "Is this the classroom for children who can't help it?" Imagine, if you will, the education on individual differences that had been launched in that

child's home! Few of us have seriously considered the fundamentals of this matter of working more closely with parents. It is a dynamic topic, begging for careful attention.

Accountability

A truly notable aspect of the IEP situation is in its suggestions for accountability, both for schools and teachers. There is no escaping the urgent implications of the IEP process for accountability. The schools, clearly, must establish the suitable conditions for the instruction of handicapped pupils; and the schools and teachers must recognize that they are going to be held accountable for competent performance. Judgement of accountability must be in terms that the public understands. The IEP might start with a focus on the child but it cannot neglect the other side of the coin: program adequacy and competency of performance. Surface activities may lead to a facade of compliance with the IEP regulations but they will not lead to the basic matter of accountability.

Measurement and Decision Processes

Inherent in the IEP process is the idea that all children should have a decent chance to meet the goals and objectives set for them and to acquire a sense of individual progress. This idea goes beyond normoriented testing; it requires a fundamental reorientation of measurements. We need assessment procedures that are sensitive to progress in the domains of achievement set out individually for each child. Thus, purposes of measurement become integral with instruction. Assessments are for the purpose of making decisions about instruction. What a far cry such assessments are from the crude social comparisons involved in most school assessments! We have hardly started in teacher preparation to rework basic concepts and procedures in this sphere, and it may be the most basic of all that we consider here.

Social Environment

Obviously, it is not enough just to move a handicapped child into a regular classroom, as we increasingly discover as we adhere to the "least restrictive alternative" principle. A supportive social environment must be created, one in which "other" children will attend to and work with the handicapped child in helpful, supportive ways. Teachers can structure their classrooms to create such environments, but few have been aided in doing so. Johnson and Johnson (1975) have exciting and important things to teach us about how teachers can create "cooperative" classroom structures in which highly heterogeneous groups of children are a plus rather than a problem. But their ideas will come to enactment only by full awareness and skill. Writing IEP's can be the occasion for planning program developments in this critical arena.

Consultation

A topic of great and grave importance today centers on how classroom teachers and special teachers relate to each other. Heretofore, each group of teachers hoarded its expertise for its own use; now, expertise must be considered as part of a common pool to which all teachers contribute and from which all teachers may draw. The knowledge of both regular and special education teachers is needed to write and carry out IEP's. This knowledge is shared most efficiently through consultation, a triadic process that can be graphically illustrated as follows:

Consultant	→	Client	→	Target
Special Teacher		Classroom Teacher		Pupil

Note that it is the regular classroom teacher who is the pivotal person in the illustration. Consultation is a process between peers. Although the special education teacher may work with the child directly under certain circumstances—perhaps for purposes of evaluation or to impart a needed skill—in general, the special teacher provides the classroom teacher with the support and knowledge needed to serve the pupil. The classroom teacher shares observations of the pupil with the special teacher, and it is on the basis of these observations that the special teacher helps the classroom teacher to develop and carry out IEP's.

Consultation is a skill that must be learned by both parties. It is a process by which peers learn to work together effectively to resolve problems. Through consultation, specialists such as school psychologists "give away" their sometimes "precious" skills to the regular teacher or even a noncredentialed person and thus establish supportive environments in every classroom rather than just a few.

But enough. These are but a few of the areas in which the fundamentals of insight and skill must be advanced if IEP's are to be meaningful and if our busy days of implementing Public Law 94-142 are to hold promise of more than mere empty formalities.

Developmental efforts along these lines are what is required to give hope that the crash efforts of the movement will amount to something important. Adopting this attitude gives us new partners, added resources, new strategies, and much duty beyond mere busywork. These are the kinds of topics that help to keep us connected to the valid purposes underlying Public Law 94-142 and take us beyond mere compliance, beyond merely staying out of jail.

A Still Wider View

Another and still larger question, obvious though it may seem, is can we extend the procedures now unfolding for the handicapped to all children? Can we work with all parents in the more detailed and concerted fashion that is part of the IEP process? If the answer is "yes," we change the general governance structure of education as a whole—not an unworthy idea!

What about institutional accountability and individual responsibility for competent performance? Can these concepts be extended to all children? What about reconsidering the roles for all specialists in the school system, just as we are now reexamining the role of special education personnel? Is it not time to simplify the sociology of the schools by bringing all specialists into support roles for the basic corps of regular teachers? There is ample reason to believe that the renegotiation of roles now going on between regular and special educators will raise these larger issues.

A Plea for Perspective

The IEP provision is of wide and basic importance. That is the message of these few observations. As we look for ways to comply with the IEP regulations, let us not forget that all educational personnel are equal partners in the enterprise and that we are accountable for our efforts not only to handicapped pupils, their parents, and the public, but to each other as well.

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Developing Individualized Education Programs for Young Handicapped Children

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EUGENE EDGAR

Early education for handicapped children is a top priority of Public Law 94-142, the Bureau of Education for the Handicapped, as well as many professionals in the field of special education. The obvious rationale for early intervention is that young children are more amenable to skill acquisition than are older children and that secondary handicapping conditions can possibly be prevented. Many very young children who should be receiving special services are unserved. Although there have been some who have questioned the effects of early intervention, logic dictates that regardless of the reason for intervention, precise, appropriate programing is absolutely necessary if any intervention is to be effective. Individualized education programs (IEP's) are a safeguard that is available to insure appropriate planning.

From *TEACHING Exceptional Children*, Spring 1978, pp. 67-70.
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THE RATIONALE

The IEP's are described in the rules and regulations, *Federal Register, 41* (252), December 30, 1976 in S121A 220-S121A 226, and *42* (163), August 23, 1977, pp. 42507ff. The only interpretation that can be made with regard to this Congressional mandate is that the IEP is an accountability check for the teacher, administrator, parent, and school system to translate the federal goal of an "appropriate education for every handicapped child" into reality. The IEP is not a binding contract between the teacher and the child in the sense that one or the other is liable if the goals of the IEP are not achieved. Rather, it is a discrete planning process designed to systematize educational planning into an individualized, child oriented approach.

Most educators will agree that there are five major steps that must be included in the educational process for handicapped children. First, there is an *assessment/diagnostic process* in which it is determined what the child can and cannot do. From this information a determination is made as to what the child needs to begin with—what he or she must *learn next*. Activities are then *planned* to facilitate learning. The plan is then *implemented* and at some point *child performance is measured* in order to evaluate the effectiveness of the entire plan. This process—assessment, goal setting, planning for instruction, implementation, and evaluation—is common to almost all educational strategies for handicapped students. Any good educational program will have these components.

In reality, almost everything required for the IEP is currently being done by competent teachers. The law clearly states that the *minimum* membership of the planning committee is to be the child's referring or present teacher, a representative of the local school district (or preschool program serving the child), and the parent(s). Additional members may be included *(Federal Register, 41,* (252), December 30, 1976, p. 56986). However, Section 121a432, (p. 56991) states that the committee contain individuals "knowledgeable about the child, the assessment results . . . ."

To our way of thinking, the committee is the most appropriate group to determine a child's individual program. Each member of the committee certainly can collect information and generate possible ideas for the IEP before the formal meeting. The professionals (teachers and local education agency personnel) need to recognize that the parents have a basic right to be involved in their child's education. There may be instances when parents (like any other member) could impede the process. However, we believe that these will be the exceptions rather than the rule.

Another major concern about the use of a committee to develop the IEP relates to the scheduling and number of committee meetings. The law allows flexibility to the extent that individuals can be assigned various tasks and the committee need meet only to agree on the final program. Certainly each individual case must be handled in a way that facilitates adequate program planning for the child. The intent of the law is clear—a group of responsible, competent individuals will develop each child's IEP. The method by which this is accomplished is left to the discretion of the group.

PROCEDURES: HOW TO DEVELOP AN IEP

Each IEP must contain the following elements:

1. A summary of present levels of the child's performance.
2. Yearly goals.
3. Short term objectives for each yearly goal.
4. A list of the specific educational and support services needed to meet each objective.
5. Evaluation criteria for each objective.
6. Procedures for re-evaluating the IEP.

There are four major procedures that need to be carried out in order to develop an appropriate IEP: collecting relevant assessment information on the child, deciding on the main priorities for educational intervention (establishing yearly goals), determining how to achieve these goals, and evaluating the IEP. The responsibility for these activities belongs to the committee. However, the committee does not necessarily have to perform each function or meet as a group in each phase, but must agree on each component of the final program.

The committee is responsible for insuring that there is an overall service delivery program for each child, that the program is implemented exactly, that the results of the program are reviewed, and that the program is revised, at least yearly. Some considerations regarding parents are that:

1. Meetings must be scheduled at a convenient time for the parents.
2. If the parents' native language is other than English an interpreter must be provided.
3. The parents need to be informed of their rights and responsibilities and should be trained in the IEP process.

The first task of the committee is to collect data on the child. Data must be included that relate to the child's current level of performance and the possible effects of the child's handicapping condition on learning.

Data To Be Collected and Analyzed

Medical Assessment Data

There can be no substitute for a thorough medical examination. Even though there might be very little that can be done to *correct* the child's medical or health problems, these conditions very often influence instructional planning. Therefore, not only must these problems be noted but an interpretation must be made as to how they affect the child's instructional programing.

- Such matters as seizures, medication, heart defects, allergies, susceptibility to illness, strength and stamina, and special feeding instructions are types of assessment information that must be considered in the formation of the IEP.
- Heart defects may require a curtailment of certain types of physical activity or specific amounts of rest periods.
- The possibility of surgical techniques to alleviate physical problems (club foot, cleft palate, leaking heart valve, etc.) must be explored and considered.
- In the rare cases of degenerative central nervous system diseases the IEP must focus on the best strategies for maintaining current functioning and retarding the loss of current skills.
- The types of medications being used must be noted, as well as possible side effects. Procedures for conducting controlled studies of varied dosages should also be established.
- Specific physical limitations may alter educational priorities (a paralyzed arm, for example, might dictate that instruction be geared to the good arm and that physical therapy be given to the immobile arm).
- Allergies may limit the types of food that can be used as possible reinforcers.
- The need for rest will certainly be a factor in determining the daily schedule of activities (a child with a serious heart problem might need to have complete rest three or four times a day).

The basic purpose of this medical information is to permit development of a *comprehensive* IEP. Thus, this information must be used to provide for ongoing medical treatment (medications, diet control, seizure control) as well as to determine considerations for educational programing. All of this information needs to be gathered *and* summarized in the IEP.

Physical Assessment Data

Many preschool aged handicapped children have physical involvement. Programing considerations will concern the procedures that can be used. Positioning, for example, is of prime importance for severely/profoundly handicapped individuals, not only as it may relate to a therapeutic program but also how various positions may facilitate or hamper other educational programing. Techniques to relax children who are spastic and strengthen those who are athetoid, procedures for lifting and moving the children, and the possible use of prosthetic devices are all critical pieces of information that must be collected during the assessment phase.

For any child who is experiencing physical problems, the initial assessment information should attend to three major points. First, a competent occupational therapist or physical therapist needs to determine the specific therapeutic needs of the student. These needs, of course, will be responded to by the IEP as special services. Second, the information gained from this evaluation should point out any of the child's specific physical limitations that will affect educational programing. Third, especially for the severely involved child, specific positioning and handling techniques need to be specified. The occupational therapist or physical therapist should be able to determine how best to position the child so that the child will be *physically* able to make the desired responses. This position should be noted on the IEP as the *desired educational position*.

In the great majority of instances, occupational therapists or physical therapists will be used as consultants to the teacher in the classroom. The initial assessment information, therefore, should include specific information on how the teacher and therapist will interact throughout the school year. Information should be included on the types of behaviors that might occur which would demand immediate therapeutic attention.

As with the medical assessment information, these physical assessment data need to be recorded on the IEP both for special program considerations and also to see how they interact with all educational programing.

Educational Assessment Data

Although assessment for instructional programing is a complex issue, several pertinent areas need to be discussed. First, the process of assessment involves teachers looking directly and frequently at specific child behaviors. Second, the materials the teachers use contain procedures for measuring objective behaviors that are sequenced developmentally in various content areas, but always including gross motor, fine motor (or cognitive), communication (language), social, and self help behaviors. Third, the formats in which the materials are presented should be program specific; that is, they are derived from the specific goals of the educational program.

Determining Priorities

Analysis of Data

When all the assessment data are collected the committee must meet and determine the child's current level of functioning and special needs. The analysis of the assessment data in order to establish service priorities is the major task of the committee and they

must establish a process for making these decisions. In most cases the professionals on the committee must carry the brunt of the decision making process. Parental input is critical, especially as to desired goals, but the professionals, who should understand the assessment data and program capabilities, will have the basic responsibility for determining priorities.

Probably the most important activity of the committee is to analyse the assessment data and establish priority areas of instruction. This activity determines the appropriateness or inappropriateness of the IEP, because the most technically correct IEP, if focused on inappropriate instructional goals, will result in low quality instruction.

Current Functioning Level

Before any meaningful program can be developed, an accurate statement of the child's current functioning level in each content area must be made. This is interpreted as the highest level of the skills the student has in each area. The priority area for instruction should be at the next level. When programing is planned at a lower level, valuable instructional time will be lost. If programing occurs at too high a level there will be little, if any, success, as well as a high degree of frustration on the part of both student and teacher. A caution should be noted at this point: regardless of the appropriateness of the initial assessment data, mistakes will be made. With the careful use of ongoing assessment procedures teachers are able to detect quickly any pinpoints that are too high or too low for a given child. Thus, daily instructional data should probably take precedence over initial assessment data in determining level of instruction. If the daily data indicate a lower level of functioning than did the initial assessment, a careful explanation of the initial assessment data is called for. In this case the teacher will have to consult with the individuals who collected the initial assessment information and try to determine the cause of the discrepancy.

Physical Limitations

There are very obvious physical limitations that will necessitate alterations in priorities. For example, completely deaf children should not be expected to acquire basic auditory skills. Obvious cases of physical limitations will certainly alter the instructional priorities. However, specific functions (i.e., motor manipulation, receptive language) still must remain as instructional priorities; only the specific skill descriptions will change. A very special caution is needed here because many times these obvious physical limitations are poorly documented. Many cerebral palsied children and partially sighted children have been poorly programed because teachers *assumed* they could never use their fingers or see. Any case of physical limitations must be precisely documented before priorities are changed.

Functionality of Skills

The ultimate criterion for programing must be: "Will this skill provide the individual with a functional behavior that will directly enhance his ability to live independently?" This priority should direct all goal setting activities. Unfortunately, many educational objectives are established simply because these objectives are "aways used." *Each skill that is taught should either be a functional behavior in and of itself or should be a building block skill* (a skill that is part of a functional behavior).

Re-evaluation of IEP's

As priorities are determined objectives must be developed for each skill area. Each objective should contain a specific procedure for determining when the child evidences the desired skill. With this procedure, re-evaluation of the IEP focuses on three questions: (1) Are the goals appropriate for the child? (2) Are the listed services being delivered to the child? and (3) Is the child evidencing skill gains? In reality all these questions are related to child performance data. Hence, the committee's task is to monitor the child's progress and to make sure that the child is receiving the services that are listed in the IEP. If the child is evidencing satisfactory gains the IEP is probably appropriate. If the child is not experiencing success the committee must determine if the goals need to be altered or if different educational procedures are called for. In any instance, the committee has the responsibility to act as a team to insure that each child is receiving the most appropriate education.

Individualized Education Programing At The Secondary Level

PATRICIA T. CEGELKA
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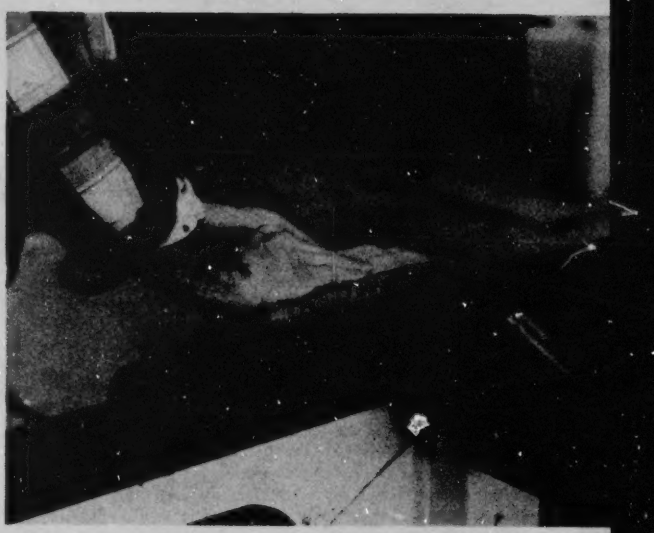

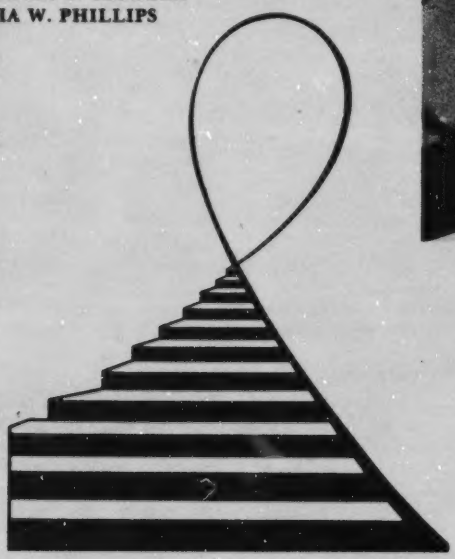

During the past several years, increased attention has been focused on the vocational preparation of handicapped children and youth. In 1972, the US Office of Education predicted that the future of 77% of the handicapped children leaving school programs over the next few years would be unemployment, underemployment, or total dependency. As one step toward rectifying this situation, the Bureau of Education for the Handicapped (BEH) declared career education as a priority program area for exceptional children. BEH emphasized that every exceptional child leaving school should have, at minimum, entry level job skills. At the same time, increased concern and support has been expressed regarding the issue of training the handicapped for exceptional children. BEH emphasized that every exceptional child leaving school should have, at minimum, entry level job skills. At the same time, increased concern and support has been expressed regarding the issue of training the handicapped for qualitative levels of employment. The mere fact of employment, regardless of job attributes or their match to the individual, is no longer acceptable for the handicapped any more than it is for the nonhandicapped. The following summarizes current thinking:

> We have, for far too long, seemed to act as though a handicapped person should be both pleased with and grateful for any kind of work society provides. Unlike other persons, we seem to assume that, if a person is handicapped, boredom on a job is impossible. Worse, much of society has seemed to assume that, while most persons should seek work compatible with their interests and aptitudes, such considerations are not necessary when seeking to find employment for handicapped persons. If *any* job in the world of paid employment can be found for the handicapped person, we seem far too often to be personally relieved and surprised when the handicapped person is anything less than effusively grateful (Hoyt, 1975, pp. 6-7).

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VOCATIONAL EDUCATION LEGISLATION

An increased emphasis on vocational education programing for the handicapped has been one approach to preparing this population for more suitable employment opportunities. The passage of various federal legislation has underscored the increasingly important role that vocational education must play in the education of handicapped children. The 1963 Vocational Education Act specifically extended vocational education services to both handicapped and disadvantaged populations. When expansion in program effort did not follow, the 1968 Amendments to that law required each state to spend a set proportion of the federal vocational education monies to provide vocational education to handicapped students not otherwise being served. Even then, the required federal monies frequently were not spent. When they were, they were usually allocated to the development and support of special segregated vocational education programs. A scathing Government Accounting Office report (1976) criticized this approach as both educationally unsound and economically inefficient. The report suggested that larger numbers of handicapped youth could receive more meaningful and appropriate training through integration into existing programs.

That the educational neglect and mismanagement of the past will no longer be tolerated is clearly indicated by the provisions of the 1976 Amendments to the Vocational Education Act and by Public Law 94-142. The 1976 Amendments specifically mandated that handicapped children must be included in regular vocational education programs whenever possible. In addition, Public Law 94-142 requires that appropriate programs be provided for handicapped children in the least restrictive environment possible. It specifically alludes to vocational education and, in fact, its provisions supersede those of the Vocational Education Act and its amendments. Consequently, it can be expected that the individualized education programs developed for most high incidence mildly or moderately handicapped children will specify vocational education training as appropriate and regular vocational education classes will be determined to be the least restrictive environment in which the requisite training can be provided. Cooperation between vocational education and special education is no longer a matter of choice; it is fast becoming a matter of compliance. By virtue of the provisions of the Vocational Rehabilitation Act of 1973, vocational rehabilitation counselors will also become increasingly involved in the delivery of services to school aged handicapped youth.

SPECIAL EDUCATOR/VOCATIONAL EDUCATOR COOPERATION

Despite federal mandates to the contrary, cooperative efforts toward providing improved career preparation opportunities to the handicapped are not yet a widely prevalent practice. Several factors appear to account for this. First, the historical orientation and training of both special educators and vocational educators has not been toward programing for the adolescent handicapped person. Vocational educators have developed programs for non-impaired youth while special educators have concentrated most of their efforts on programing for young children. Consequently, few professionals in either discipline have been trained to meet the unique needs of the adolescent handicapped individual. Neither the skills nor the attitudes required for such an orientation have been developed. Finally, neither group has been particularly motivated to venture into this new arena. We have found it easier, as well as more comfortable and secure, to do those things with which we have previously experienced some success (Gover, 1977).

Attempts to remedy these situations have been made at national conferences for teacher educators from both the special and vocational education disciplines, as well as through the development of inservice and preservice programs for public school personnel.

THE IEP PROCESS

All professional personnel concerned must be prepared to demonstrate the needed competencies in assessing the student's skills, planning an individualized program, determining the program placement, specifying the instructional components, and evaluating the total program. This article focuses on the development of the individualized education plan as the structure for the delivery of services. Vocational educators in cooperation with special educators, other teachers, parents, administrators, and when appropriate, other individuals, must share in the process of developing, implementing, and monitoring the educational programs for handicapped adolescents. The following discussion deals with some basic considerations inherent in this process.

Assessment

Assessment should be viewed as a two stage process: assessment occuring prior to the initial development of the IEP, and the program placement; and ongoing assessment of abilities and interests that occurs as the student participates in a developmental sequence of academic and career preparation experiences. Brolin's (1976) text provides an excellent review of a wide variety of interests and

aptitude tests that are potentially useful for both the academic and vocational assessment of the adolescent handicapped student. The academic skills of the student can best be assessed through a combination of standardized tests, informal assessment procedures, and behavioral observation techniques. These assessments will provide a basis for decision making regarding the identification of the child as exceptional, the appropriateness of placing the child in selected mainstream classes, and the prescription of necessary remedial procedures. The assessment of the student's skills will suggest a general direction for the career preparation components of the program.

Additional tests and techniques, such as work-sample systems, provide the evaluator with data that delineate or further support the identified skill aptitudes of the student as well as with observational data on a wide range of behavioral characteristics. Data such as these are the basis from which tentative long term career objectives are developed and program experiences planned.

As a function of his or her career development experiences, the student should develop new skills that will facilitate exploration and clarification of individual occupational interests. Through ongoing assessment with the student, areas of strengths and weaknesses and career interests will continually be scrutinized and, where indicated, appropriate alterations in the education program as initially written can be modified to include these as reflected in the IEP.

Placement

It has been stated that the initial labeling of an individual as handicapped will probably be the most significant event in that person's life. Another event with similar significance is the development of the education plan that culminates in a special education placement for that individual. Decision making that leads to initial special education placement usually occurs at the elementary level. However, of no less importance are those decisions that are required as the student's program is reviewed and revised throughout his or her educational experience. At the secondary level these program decisions have a direct and foreseeable impact on the quality of adult adjustment that the individual is able to attain. Programs can no longer be designed primarily in terms of their relationship to future academic programing, as often is the case during the elementary years. The imminence of the secondary student's adulthood requires that the quality of his total life adjustment be of paramount concern to those persons involved in developing the IEP and designing the educational experiences.

If it is determined that placement in a special education program continues to be the appropriate placement for the handicapped student, a wide range of program alternatives are available, ranging from self contained special education programs to almost totally mainstreamed programs. While there are many positive benefits to be gained from the integration of a student into the regular school program, it should not be assumed that this programing alternative will be appropriate for all handicapped students. Some may not have the skills necessary to succeed in regular academic or vocational programs, even with the provision of additional support services. Further, the focus of the regular program may not be compatible with the needs of the individual handicapped student.

One recommendation regarding mainstreaming that has a great deal of merit includes the prescriptive placement of students into those classrooms that offer the best means of obtaining specified competencies, with students remaining in these classrooms only as long as required to achieve the competency or competencies. This suggests that some students may be placed in vocational education programs for the entire vocational training sequence while others will receive only that training necessary for them to attain the minimum entry level skills for the jobs of a particular occupational cluster.

Curriculum

Each program alternative available to meet the needs of any handicapped student must be considered in light of the curriculum design. An excellent framework for the development of the curriculum of the secondary program is found in Brolin's (in press) competency based approach which specifies 22 competencies and 102 subcompetencies that mildly handicapped individuals should attain. The provision of Public Law 94-142 for the extension of secondary programs until age 21 should mean that ample time is available for this competency attainment. In this system, academic skills play a supportive role, being viewed primarily as a means to attaining occupational, daily living, and personal-social competencies. This approach has significant implications for the curriculum experiences specified in the IEP.

The career education model also has important implications for the achievement of skill levels of students entering secondary programs. During the career awareness stage in the elementary years and the career orientation and exploration phase of junior high school, students can be expected to develop the essential attitudes and skills prerequisite to the more specific occupational orientation of the secondary level career preparation experiences. This should simplify the task of vocational education teachers, as they can then concentrate all of their efforts on skill development training. Nonetheless, the special education program components at the secondary level should continue to emphasize the acquisition of those personal characteristics and attitudes necessary for successful employment.

Research has indicated that it is frequently deficiencies in these areas that account for employment failures among the handicapped. The vocational education teacher may find it necessary to alter instructional methods (such as substituting oral directions for written ones), to adapt machines and tools, and to differentiate instructional goals for the handicapped student. The IEP may specify that the student complete the entire vocational training sequence or only a portion of it. Even though an initial IEP may call for only a limited level of vocational skill training, the ongoing assessment of student progress and abilities may indicate that these objectives should be revised to include more sophisticated skill training.

Two sets of curriculum materials that should be of particular value to vocational educators wishing to provide competency based

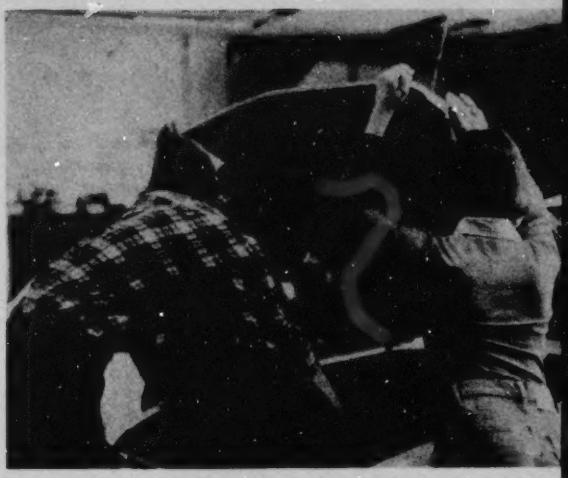
programing are the Learning Activity Packages (LAP's), developed by the Interstate Distributive Education Curriculum Consortium, and the Competency-Based Vocational Education modules developed at the University of Kentucky. Both of these programs afford individualized, competency based instruction across a wide range of occupational skills. One of them, a combination, or neither might be determined to be the most appropriate approach to the curriculum design. The critical consideration is that the program be developed or modified to follow a logical skills sequence leading to the student's achievement of the long term goals and objectives of his or her IEP.

Program Management

The development of the IEP is the initial step in appropriate programing for the handicapped student. However, equally important is the task of monitoring the implementation of this plan. If it is determined that the student's instructional needs can best be met through placement in special education classes for a portion of the day, the special education teacher would be responsible for the implementation of that portion of the plan. However, if the student can perform successfully for the remainder of the specified academic subjects in regular classrooms, it would be the responsibility of those teachers to manage those portions of the educational program. A third alternative is the placement of the student in a vocational education program under the guidance of either a regular or a special needs vocational teacher. This teacher is then responsible for programing for these goals and objectives.

All of these teachers share collectively in the responsibility for monitoring the student's progress toward the goals and objectives of the total program. Public Law 94-142 requires that the placement committee, which now includes those persons who originally developed the IEP as well as those individuals designated as responsible for portions of the prescribed program, meet at least annually to review the student's progress and determine what program extensions or expansions should be written into the IEP. A key person to the success of this endeavor is the committee manager or chairperson. The manner in which this role is fulfilled can be critical both to compliance with the law and to the achievement level ultimately attained by the handicapped student. The following conceptualization outlines some of the major responsibilities of the program manager.

1. *Monitoring timelines.* The program manager, through consultation with the responsible teachers, must determine that the goals and objectives targeted in the IEP are being met by the specified dates.
2. *Contacting committee members.* Committee members must have time prior to the committee meetings to summarize the required data on student progress toward goals and objectives and to prepare statements of alternative suggestions as necessary.
3. *Scheduling placement committee meetings.* This must be accomplished in advance of the dates targeted for the attainment of the short term instructional objectives.
4. *Maintaining records.* Records must be maintained on current data provided by the teachers and from any additional assessments. Relevant information relating to the committee meetings must be disseminated to appropriate persons (e.g., the parents, should they fail to attend a review meeting).
5. *Chair the meeting.* A task orientation must be maintained and the unique professional competencies of the staff utilized in an effective and efficient manner.



Evaluation

The evaluation component is the key to insuring the student's successful progression through his or her individualized education program. Evaluation is initially structured by the writing of short term instructional objectives. The objectives include statements of each terminal behavior, expected conditions under which the behavior is to occur, and the criteria for evaluation of the student's performance level. Monitoring and evaluating the student's progress is further indicated by the projection of dates for the initiation of a task and the anticipated duration of that task. A review, to be held at least annually, is required by Public Law 94-142. However, in order to monitor the IEP effectively for the student's maximum success, the review should occur as often as necessary to coincide with the objectives. In this way, an appropriate decision can be made as to whether the student should remain in the same program for an extended but specified period of time, whether the program should be redirected, or whether additional components should be added to the initially planned and completed program.

SUMMARY

This article has reviewed the implications for secondary level students of legislative mandates requiring individualized education programing for handicapped children. It is clear that these youngsters must be included, where appropriate, in vocational education programs as well as other mainstream programs. The development and implementation of the IEP was discussed as the structure for the delivery of these educational services. Five basic considerations for the development, implementation, and monitoring of the IEP were discussed: assessment, placement, curriculum, program management, and evaluation. It was emphasized that the role of the program manager is one that is essential to comply with both the letter and intent of the law.

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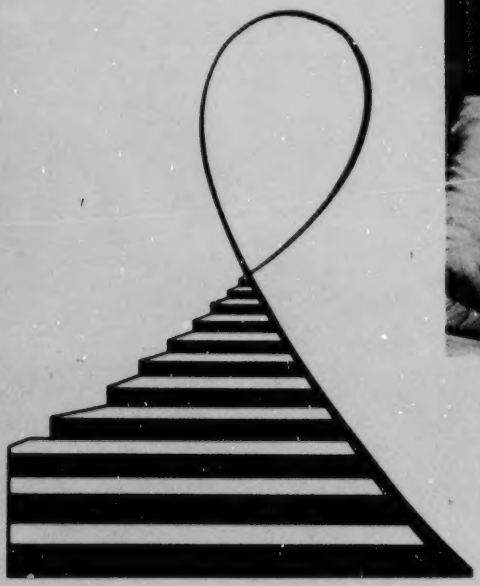
IV. Instructional Practices

Eleven Steps to Good Teaching

SUSAN HASAZI ROBERT YORK



During the past decade, the educational rights of handicapped children and their parents have been recognized and affirmed. Perhaps the most important affirmation of these rights was the passage of Public Law 94-142, The Education For All Handicapped Children Act of 1975. This law attempts to insure that all handicapped children are identified and receive a free, appropriate public education. To insure the appropriateness of a child's program an individualized education plan (IEP) must be written for each student. At first glance the requirements for the development of each IEP may appear to be inordinately extensive and/or cumbersome. However, we believe these requirements are not extraordinary, but represent steps typically performed in the course of "good teaching."

In our view, good teaching is comprised of a series of interrelated steps that appear to apply equally to handicapped and nonhandicapped students, all teaching environments, and instruction on any skill. Many of these steps are similar to those required in the development of an IEP. Not surprisingly, these teaching steps have been identified by other authors and might be termed *a common sense approach to teaching* (Christie, Williams, Edelman, Hill, Fox, Fox, Sousie, & York, 1977; McKenzie, Egner, Knight, Perelman, Schneider, & Garvin, 1970). These 11 steps are listed below and described more fully in the following narrative.

Preparation of this paper was supported in part by Special Projects Grant #451 AH8 60351 and Program Assistance Grant #6007306053 from the Bureau of Education for the Handicapped, USOE, HEW.

From *TEACHING Exceptional Children*, Spring 1978, pp. 63-66.
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STEPS TO GOOD TEACHING

1. Meet and learn about the students.
2. Determine what the students want to learn and/or what their parents want them to learn.
3. Determine the students' current skills.
4. Determine the skills needed by the students.
5. Specify the goals of instruction.
6. Break the goals down into smaller, teachable, and measurable objectives that, when acquired, lead to the realization of the goals.
7. Select instructional procedures to teach those objectives.
8. Select materials, tasks, and physical arrangements that fit the objectives and instructional procedures.
9. TEACH – implement the instructional program.
10. Measure student progress on the objectives.
11. Evaluate instruction in light of student progress and make appropriate revisions.

Meet and Learn About the Students

It is essential that every student be viewed as an individual with unique strengths, weaknesses, and learning experiences. Sensitivity to individual differences and knowledge about each student are important to the development of quality instructional programs. Familiarity with students allows a teacher to accurately assess skills and facilitate optimal performance. A teacher's knowledge of his or her students is the best single information source for developing and revising instructional programs.

Determine What the Students Want to Learn and/or What Their Parents Want Them to Learn

The guidance and cooperation of students and parents is necessary in the development and implementation of instructional programs. Since parents have had the greatest opportunity to observe their child's behavior, they can provide valuable information regarding current skills, as well as particular preferences and dislikes the child may have. Further, parents are in the most appropriate position to predict future needs and lifelong goals for their child.

Determine the Students' Current Skills

We believe the best currently available way to determine a student's skills is to compare his or her current repertoire against comprehensive sequences of skills. Such skill sequences consist of hierarchies of behaviors that progress from the most rudimentary level to competent functioning in major developmental and academic areas. Similar to the mathematical concept of a number line, skills can be ordered along a continuum of increasing complexity. However, instead of being comprised of a chain of numbers, skill sequences are comprised of behaviors. These behaviors can be converted into objectives for assessment and later for instruction and evaluation. Placing each student within such a sequence of skills allows the formulation of a basic map of where the student is and what skills might be appropriate for instruction (York & Williams, 1977).

Such assessment procedures are based on the notion that evaluation of a student's performance should relate to the environment in which he or she will be functioning. Further, it suggests that assessment should be closely linked to instruction, thus encouraging the process of on going, continuous evaluation.

Determine the Skills Needed by the Student

Following a comprehensive assessment of a student's skills, a careful evaluation of the current and future environment must be made. This process will assist the teacher in determining "what" skills are or will be needed for adequate functioning. Teachers should provide a rationale concerning the value of a skill to a student once it is acquired (Brown, Nietupski, & Hamre-Nietupski, 1976; Williams, Brown, & Certo, 1975). Questioning the rationale behind the teaching of a specific skill will also assist the teacher in prioritizing objectives.

Specify the Goals of Instruction

Following completion of steps 1 through 4, the teacher is ready to select the goals most appropriate for the individual student (Hasazi, 1976). These goals should be selected using: (1) input gained from interactions with the student and/or the parents, (2) assessment of the student's current skills, and (3) the teacher's assessment of what skills the student needs to acquire in order to function successfully within current and probable future environments.

Break the Goals Down into Smaller, Teachable, and Measurable Objectives That, When Acquired, Lead to the Realization of the Goals

Specifying goals is much easier than developing the carefully sequenced set of objectives or steps that will lead to the realization of those goals. Breaking the goals down requires a careful analysis of the component skills comprising those goals. For example, walking across a classroom within 30 seconds may be an easily agreed on goal. However, generating the sequence of objectives from head control to walking is considerably more demanding and might include steps like: (1) creeps (hand/knee locomotion), (2) pulls to knees, (3) lowers from knees, (4) kneels with support, (5) pulls to standing, (6) lowers from standing, (7) stands supported, (8) stands alone, (9) walks sideways while holding onto a table, (10) walks forward while holding onto a table, (11) walks forward along a wall, and (12) walks forward with support (Williams & Fox, 1977).

The process of breaking goals down into teachable objectives is often referred to as task analysis. The seven basic steps of the task analysis process are listed here.

Seven Steps of Task Analysis

1. Delineate the instructional objective.
2. Review relevant literature and resources (normal developmental sequences, curriculum guides).
3. Derive and sequence the component skills of the objective.
4. Eliminate unnecessary skills.
5. Eliminate redundant skills.
6. Determine prerequisite skills.
7. Monitor student performance and revise the task analysis as required (Williams & Gotts, 1976).

Skill sequences developed through task analysis can be adapted to accommodate varying entry levels as well as differences in classroom environments. They provide a framework upon which teaching procedures can be designed. Importantly, these objectives or steps must be stated so that parents and teachers know what to look for as evidence of progress. For this reason, many teachers now use a format made popular by Mager (1962) that specifies the condi-

tions under which learning is to occur, the expected student behavior, and the criteria for acceptable performance. This format helps to assure that progress toward achievement can be reliably observed and measured.

Select Instructional Procedures to Teach Those Objectives

While considerable debate exists concerning the "best" instructional procedures, the fact that some procedures are necessary is generally accepted. Even advocates of "discovery" or "self instructional" approaches typically attempt to arrange the educational environment so that "discoveries" may more readily occur. We consider any attempts to arrange or create an environment that produces specified changes in the student's behavior to be instructional procedures (Brown & York, 1974). Primarily, these instructional procedures may be broken down into three components.

First, the educational environment preceding the task the teacher wants the student to perform should be arranged to maximize the likelihood that the student will perform that task. This could include such antecedent events as giving clear directions, providing specially designed curriculum materials, or changing the physical environment to encourage social interactions.

Second, the actual behavior to which the instructional procedure is directed must also be considered. The specific skills, knowledge, and attitudes a teacher hopes to develop must be specified and provisions must be made for the unique physical and behavioral characteristics of each student. Consequently, alternate paths to the same goal must be determined in order to accommodate these characteristics.

Third, the consequences for correct and incorrect performance must be specified so that the student will receive appropriate feedback and continue to work at the task of learning. Feedback and reinforcement must be provided to guide, encourage, and nurture the child's love of learning. What the student learns should be of functional value and assist the child in effecting his social and physical world. Ideally, the learning environment is one that promotes further learning by stimulating curiosity and motivation.

Select Materials, Tasks, Physical Arrangements, and Schedules that Fit the Objectives and Instructional Procedures

The physical environment should be arranged to facilitate active involvement and cooperation among students. Further, the environment should be flexible enough to allow for large or small group instruction, self directed learning activities, and one-on-one teaching. Emphasis should be placed on designing or choosing learning materials that are functional, enjoyable, and have generalized value to the student. This requires that a teacher be able to manage an educational environment designed to encourage diverse learning experiences that are receptive to the unique needs of each student.

Aspects of this step are both conceptual and mechanical. The teacher must both decide that an objective, such as matching numerals, can be taught through a game, and then assemble the necessary materials. If the objective is to develop social interactions, the student needs someone to interact with and a place in which to interact. These opportunities for interaction must be regularly scheduled within the time available for instruction. This step requires many decisions, ranging from how the furniture will be arranged, to how this skill can be taught and tested in a natural setting.

TEACH—Implement the Instructional Program

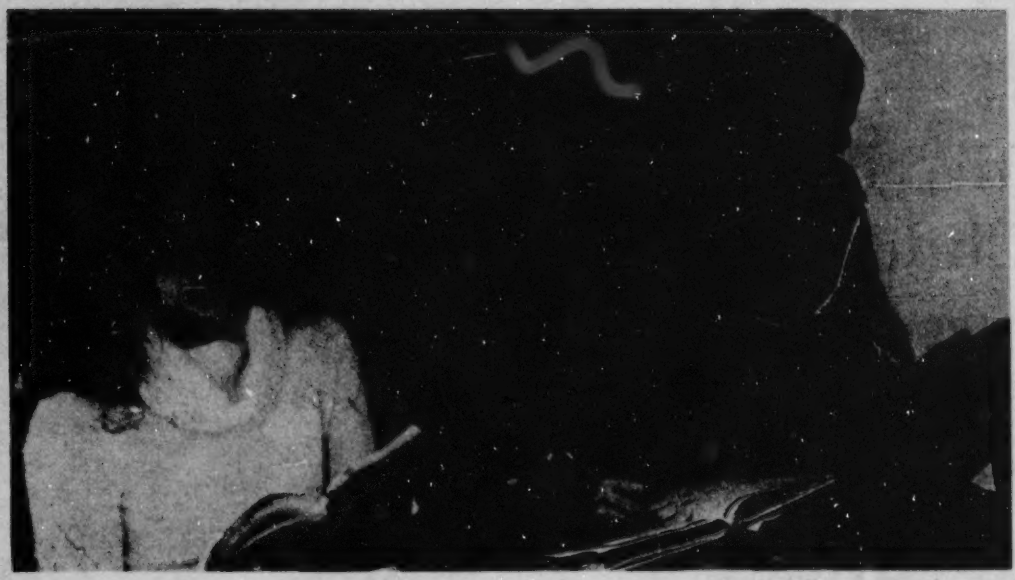
This is, of course, the most obvious thing a teacher must do and perhaps the most important step. Time engaged in direct instruction of a skill has been shown to be the most significant determinant of whether that skill was subsequently acquired (Fredericks, Anderson, Baldwin, Beaird, Moore, & Grove, undated). However, we have seen teachers become so involved in the other steps of teaching that they apparently forgot to teach.

Measure Student Progress on the Objectives

The two major reasons for measurement of student progress are to determine the success or failure of current teaching efforts and revise or continue those efforts as appropriate; and to document student progress over time so that the students, parents, and others are informed and can assist in updating goals. Thus, measurement or data collection is done to aid and improve decision making. Collection of data that are not used for these purposes is usually of little or no value.

Evaluate Instruction in Light of Student Progress and Make Appropriate Revisions

The importance of writing observable and measurable goals is underscored during the process of evaluation. If the goals have been written in such a way that it is clear whether or not the desired behaviors have been learned, evaluation becomes linked to



instruction. The question teachers should ask is, "Has the student learned what I had hoped to teach?" If no progress has been made, teaching has not occurred.

If progress is not apparent or is less than expected, the teacher needs to carefully reconsider all 10 teaching steps leading up to this point. Examination of these steps usually suggests several possible program changes, e.g., Is progress on objectives slow because some prerequisite skills are missing? Are the teaching procedures ineffective because of unclear instructions or uninteresting consequences? Are we measuring the wrong things and missing progress? Thus, solving problems usually means reexamining the first 10 steps of "good teaching." Often a teacher's own analysis will identify a potential problem and suggest appropriate revisions of that step.

If skills are being learned, a teacher must still ask the questions "Is learning fast enough?" and "what is the quality of learning?" Teachers must be concerned with the quality of their instruction and its effectiveness in preparing students to adequately function in their living and working environments. Thus, effort needs to be expended to measure the durability and generality of instruction. Are the skills that were taught functional to the student as he or she performs the tasks required in his or her daily life? Are the skills durable so that the student is able to use them after instruction is over? Do the skills generalize to new settings, people, and materials? Is skill performance controlled by events in the natural environment?

SUMMARY

The 11 teaching steps that have been presented certainly are not revolutionary. However, we feel they define the basis of "good teaching." Further, the development of an individualized education program requires that many of these steps be followed, and, in fact, specified in writing, for each handicapped student. As simple as they seem, their successful implementation usually requires substantial amounts of hard work. However, their successful implementation appears to lead to that most desirable goal of any teacher . . . students who learn and grow.

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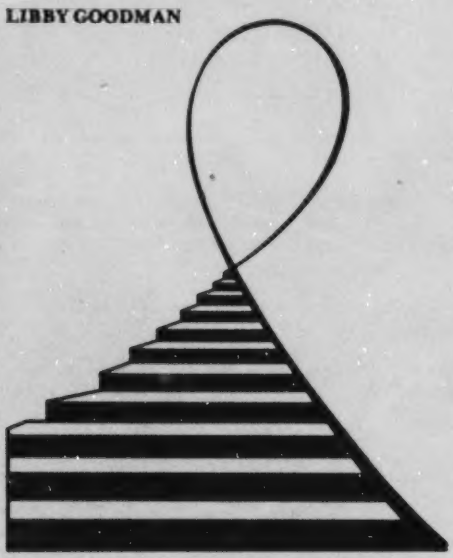
Meeting Children's Needs Through Materials Modification

LIBBY GOODMAN



Today, more than ever before, special education teachers have an enormous array of instructional materials from which to choose the specific curricular materials for use with their handicapped students. The software of special education includes materials for basic skill instruction in the fundamental subjects (e.g., reading, mathematics, spelling, handwriting, etc.) as well as materials in many content subjects specifically designed for the special or remedial student. Materials for specialized skill areas such as perceptual motor language, readiness, and the most basic training in the areas of self help and awareness, abound. An extensive and constantly growing library of high interest, low readability materials on a wide range of topics for the heterogeneous group of problem readers is available to the teacher and student.

The hardware of special education, which often accompanies the curricular packages, includes a phenomenal array of electronic and manual gadgetry from desk calculators for drill in arithmetic operations to programed readers and language masters. In the midst of such an abundance of materials and technology, teachers are faced with the formidable task of selecting materials to match *their* children's needs.

From *TEACHING Exceptional Children*, Spring 1978, pp. 92-94.
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SELECTION OF MATERIALS

The special teacher very likely will become concerned with the selection and use of specific curricular materials in the later phase—the teaching phase—of the diagnostic prescriptive teaching process. The initial diagnosis of the child typically will yield information as to the child's current levels of educational performance (this much at least is required for compliance with Public Law 94-142) and should reveal specific patterns of strengths and weaknesses in the child's performance that are relevant to school success. Armed with this information, the teacher will have to identify the instructional materials that fit the child both in terms of specific academic or training needs (e.g., comprehension skills, word attack skills, spelling errors, etc.) and individualistic learner characteristics (e.g., preferred learning styles, special interests, etc.)

The major objective for the teacher in materials selection is to place the child on a level and to choose a task at which he or she can maximally benefit from instruction. That is, the teacher is striving, in the selection of a specific curriculum and the placement of students in curricula, to find the right balance between what the child already knows and what needs to be learned—between challenge and frustration. While various procedures and criterion standards are used to judge when a child has been properly placed into a curriculum sequence, in the end the teacher's judgment must prevail.

INSTRUCTIONAL LEVELS ARE NOT ENOUGH

After conducting a thorough diagnosis of the child's learning needs and carefully selecting the curricular materials, it may be disconcerting to the teacher to find that the student still is not experiencing success. This situation—which is not at all uncommon—highlights the fact that knowing a child's instructional level may not be enough to insure the child's success. Certain features (or lack of features) of the material itself, which may otherwise be appropriate, may present an obstacle that the child cannot overcome. Further adaptations or modifications of the learning materials are often necessary to bring mastery of the content within the child's grasp.

No one questions the need for adapted materials for children with physical or sensory deficits. Teachers need to be as flexible and creative for children without obvious physical limitations who may nevertheless require something special in the way of learning materials. Teachers of exceptional children should make the best use of both special materials and regular materials at their disposal but they should also be prepared to make further adaptations and modifications as needed. Teachers should anticipate the need to individualize, indeed customize, learning materials—even those that are expressly designed for the handicapped—in order to meet individual needs. The truly amazing accomplishments of many handicapped children that are made possible through the adaptation of materials and/or curricula emphasize that all special teachers need to become, at some time, instructional engineers.

RESOURCES FOR THE TEACHER

There are several references to which the teacher can refer for guidance in the identification of appropriate instructional materials (Goodman, in press), selection of materials (Boland, 1976; Grospeluis, 1975), and evaluation of materials (Wiederhold & McNutt, 1977) but few sources that offer guidance specifically on curriculum/materials adaptation. One very helpful reference is entitled *Mainstreaming the LD Adolescent: A Staff Development Guide*, developed by South Carolina Region V Educational Services Center. This guidebook offers specific and systematic procedures for adapting materials; and, despite the focus on children with learning disabilities, the procedures are applicable across various handicaps. A few suggestions will illustrate the variety of ways in which the teacher can begin to modify materials. Some of the variables under the teacher's control and examples of their adaptations include:

1. *The specific material to be used:* type of material, topic, interest level, etc.
2. *The amount of material presented to the student:* if a full book or a whole page overwhelms a child, the daily portion can be reduced to a lesser amount; if 20 arithmetic problems are more than the student can accomplish without wandering off the task, fewer problems can be given at one time, etc.
3. *The difficulty level of the material:* difficulty of material may hinge upon language complexity, conceptual complexity, readability, amount of material on a page, etc., and these factors can be altered.
4. *The sequence of presentation:* while skill hierarchies offer a general guideline, the specific sequence need not hold for all children, for some learning disabled youngsters cursive writing should proceed or totally replace manuscript writing even though the traditional progression is appropriate for most children.
5. *The mode of presentation:* if a student is unable to read the material presented but is capable of dealing with the concepts it contains, a tape recording of the text may effectively overcome the obstacle to success.
6. *The mode of response:* frequently handicapped students have the understanding we wish to teach them but are unable to demonstrate their mastery of the content through the traditional means, e.g., written, timed examinations; alternative response modes, oral tests, untimed examinations can be explored.
7. *The development of supplementary learning aids:* reading or study guides can be used to provide the added structure and direction needed by some students.

In addition to the materials themselves, the teacher has control over the learning environment and can manipulate environmental factors to further enhance the learning situation. Some situational factors under the teacher's direct control include:

1. Time—when the learning activity will take place.
2. Space—where the learning will take place.
3. Student grouping—from individual instruction to peer tutoring.
4. External motivators—behavior modification techniques, student contracting, student self monitoring, etc.
5. Homework and parent involvement in the instructional process.

While we encourage innovation and creativity, as teachers begin to modify materials and/or the learning environment they should bear a few general principles in mind.

First, the best curricular package is not going to suit every child; alterations and modifications to individual learning materials ought to be the rule not the exception in special education.

Second, initiate as few alterations as possible to achieve the desired results. Experiment with one variable (task dimension) at a time, and assess its effectiveness before undertaking multiple changes. For some children curricular modifications (e.g., braille) are permanent. But for many of our children, at some later date or time, it will be necessary to retrace our steps to prepare them to again function adequately and appropriately with regular materials in regular classroom settings. The less we have to undo the better. Try the simplest and most obvious solution first; forego the token economy if a smile or an encouraging word will do the job.

Third, give any alteration a reasonable trial period. One lesson is hardly a fair test situation and three months is far too long especially if the student has not responded positively to the curricular changes.

Finally, maintain records of the child's behavior and performance for objective decision making.

Every teacher must be concerned with utilization of materials so that the learning of students is enhanced. Every teacher must recognize that instructional materials are one of the special teacher's most potent tools; the selection and use of instructional materials are two of the special teacher's major responsibilities.

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Practical Task Analysis for Special Educators

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This article is designed as a practical guide for teachers of handicapped children who wish to make task analysis a functional part of their teaching repertoires. A brief rationale for task analysis within a behavioral approach to instruction is presented followed by general guidelinesd for task analysts. Six different methods of task analysis are outlined and their applications are explained. The methods of analysis described should better enable teachers to break down the myriad goals encountered in special classes. Guidelines for checking the adequacy of task analyses are included.

THE ROLE OF TASK ANALYSIS

More and more special educators are using a behavioral approach to the instruction of handicapped learners. The trend toward using this type of approach is due in part to new legislative demands for teacher and program accountability in special education. Further motivation for the use of the behavioral approach has been supplied by mounting evidence of increased learning resulting from its application to the education of severely handicapped learners (Gold, 1976). Task analysis, or the breaking down and sequencing of goals into teachable subtasks, is a critical component of the behavioral approach. It serves a dual role in the instruction of handicapped learners.

First, task analysis serves a useful diagnostic function by helping teachers pinpoint their students' specific functioning levels on targeted skills. Ysseldyke and Salvia (1974), Knapczyk (1975), and Bateman (1967) have outlined the usefulness of a task analytic diagnosis of the entry skills of handicapped learners. First, a goal is selected and broken into its component subtasks. Each learner is assessed on the major goal and each subtask. He or she can then be instructed on only those subskills in which he or she is deficient. The criterion referenced task analytic approach to diagnosis yields performance data more directly related to the teaching of tasks than traditional norm referenced approaches.

Second, task analysis provides the basis for sequential instructional programs that move the handicapped learner toward mastery of a target goal at a pace appropriate for him or her. The subtasks resulting from a thorough task analysis form the basic steps in an effective program. Tawney (1974), Bateman (1974), and Siegal (1972) support task analysis as the basis for sound instructional programing for the mildly handicapped learner. Williams, Brown, and Certo (1975) contend that task analysis is even more critical to teachers of severely handicapped learners for whom the programmatic steps must be sequenced with much precision and care.

Up to this time most articles on the subject of task analysis have focused on describing basic principles and the general usefulness of the approach for special educators. A few articles have dealt with practical approaches to task analysis but these have limited use as they advocate one rather than a variety of analytic procedures. The goal of this article is to extend the principles into practice by providing educators with working guidelines and a variety of specific techniques for conducting task analyses.

In our work with preservice and inservice teachers we have found that no one method of analysis is equally well suited to all tasks. We have also noted that as teachers gain experience in applying the various analytic methods, personal preference begins to influence the methods that are selected. Individual teachers begin to rely on one or two methods to the exclusion of others. In order to become skilled in selecting the right method of analysis for each task, it is necessary for teachers to be aware of, and to practice each of, the existing methods of analysis.

GUIDELINES FOR TASK ANALYSIS

There are several general guidelines that should be followed by teachers wishing to conduct task analyses.

First, the scope of the main task should be *limited*. Too often potential analysts fall into the trap of selecting a main task which, although otherwise appropriate, is too large to be manageable. Should this occur, the task is best divided into several main tasks that can be analyzed separately. For example, a goal such as "self help skills" would be too cumbersome; focusing on one self help skill such as shirt buttoning or hand washing would be more appropriate. With practice the analyst will be able to predetermine those goals that are too large. Starting with a Mager-type behavioral objective (Mager, 1962) usually serves to narrow the scope sufficiently.

Second, subtasks should be written in *observable* terms. In the breakdown process each subtask should be written so specifically that there would be agreement by several observers that the task can be seen and measured.

Third, terminology should be at a *level* understood by potential users of the analysis. Some analysts spend a great deal of time phrasing the analysis in terms that could be understood by the handicapped learners. Since the analysis is used by the teacher in selecting and designing instructional activities for the learners rather than by the learners themselves, there is no need to use simpler terms than those that could be understood by potential users.

Fourth, the task should be written in terms of what the *learner* will do. For example, analysis of the skill of sharpening a pencil might yield the following subskills:

From TEACHING Exceptional Children, Fall 1978, pp. 16-18.
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1. Pick up pencil with dulled point.
2. Insert correct end into sharpener.
3. Grasp handle of sharpener.
4. Rotate handle several times.
5. Remove pencil and check point for sharpness.
6. Reinsert pencil and repeat process if point is still dull.

This list correctly looks at the task from the point of view of what the learner will do. It would be incorrect to begin the analysis of the task with "I will give the pupil some pencils and ask her to sharpen them" because this indicates what the teacher will do to teach or test for the skill rather than what the student will do to perform the task.

Finally, the *task* should be the focus of attention not the learner. While the analyst must be aware of the general characteristics of the population for whom the analysis is intended, focusing on a specific learner and the way he or she would complete the task is counterproductive. Too often important subtasks are omitted and needless ones are included. The initial analysis can be adapted to the idiosyncratic needs of each learner such as confinement to a wheel chair or inability to use thumb-finger opposition.

CHOOSING A METHOD OF TASK ANALYSIS

All tasks, whether they belong in the psychomotor, cognitive, or affective domains of learning can be broken down into simpler units of performance. Since a variety of step by step procedures is available the analyst must choose the method that best fits a particular goal.

Unfortunately, there is no fool proof formula for selecting the appropriate method of analysis for a given task. Our decision making process generally involves selecting a likely method and trying it. If that one does not lead us anywhere, we simply proceed to another method. Sometimes two or more methods are equally suitable to the task and this is where the personal preference or style of the analyst comes into play.

There is no substitute for extensive practice for one who wishes to make the skill of task analysis a functional component of his or her repertoire. For this reason, suggested practice exercises are included following each task analysis method described. If possible, the analyst should team up with one or two others for a built in check of his or her efforts.

Analysts should not become frustrated if their first efforts take a great deal of time. With practice, the time involved in conducting analyses decreases and their quality increases.

Methods of Task Analysis

Method 1

The "watch a master perform" method is especially well suited to the analysis of psychomotor tasks. To use this method, the analyst watches a person proficient in the performance of a task (such as setting a table or riding a tricycle) and writes down in correct temporal order all the steps the master performs. Every step should be recorded excluding only those judged to have no relevance to the major task. The steps should be written as accurately and concisely as possible.

This method can also be used for cognitive and affective tasks, but observation in these domains may take longer and the initial breakdown may have to be reorganized in a more logical order. With cognitive tasks there is less overt behavior for the analyst to observe.

Practice exercises: Alphabetizing a list of words
Making a telephone call
Using correct table manners

Method 2

A variation of the "watch a master" method is for the analyst to perform the task himself. This method is useful but sometimes becomes awkward because performance of the task interferes with the ability to record its important elements.

We have found that some of the problems with this method are removed when an analyst starts with a behavioral objective, gathers the props necessary for the task, and then verbalizes each step while performing the behavior. Using a tape recorder removes the necessity of stopping to record subtasks. To check the adequacy of the breakdown the analyst should perform the task a second time following the steps outlined, adding or deleting steps as necessary.

Practice exercises: Tying a shoe
Writing a business letter
Multiplying by two digit numbers

Method 3

A third method of task analysis is performed by working backward from the terminal objective. It results in a pyramid of tasks leading to successful completion of the major goal. To use this method the analyst focuses on the terminal objective and writes down those behaviors that are at the preceding level of difficulty. Then, each of those behaviors is treated as the main goal and the process is repeated. The analysis should be discontinued when the entry level of the target learner is reached (Thiagarajan, Semmel, & Semmel, 1974).

Practice exercises: Computing overtime pay
Polishing a pair of shoes
Identifying members of a concept class (e.g., community helpers)

Method 4

A method identified as brainstorming (Frank, 1975) is somewhat less systematic than other methods, but is useful for analyzing complex tasks that do not conform to any strict temporal sequence. In this method, the analyst simply writes down all the subtasks involved in a particular goal without regard to any order. Then, the tasks are rearranged in as logical an order as possible.

This method seems to be especially useful when a number of individuals analyze the same task and then compare results, adding or deleting subtasks as necessary.

Practice exercises: Finding the correct definition of a word
Making change for sums less than one dollar
Using a washing machine

Method 5

The fifth method requires the analyst to focus on and break down the conditions specified in the terminal objective. The conditions are modified to make it easier for the learner to perform the specified behavior. As the learner gains proficiency the simplified conditions are slowly changed to approach the conditions in the original objective. The following objective represents one that might require task analysis in a special class.

> *Given a 4 x 6 inch piece of paper with a 3 inch pencil line drawn on it, the pupil will use primary scissors to cut the paper on the line without deviating more than ½ inch from the line at any time. She will stop cutting within ½ inch of the end of the line.*

Any of the methods outlined this far could be used to delineate the steps involved in the actual cutting process. The objective could be further analyzed by simplifying the conditions under which the cutting must take place. The analyst seeks ways of adding to, deleting from, or otherwise changing the conditions to make the performance easier for the learner. It might be instructive for the reader to attempt to analyze the conditions in the preceding objective before reading further.

One of the most obvious changes that could be made in the paper cutting objective is to shorten the line. It would probably be easier to cut a 1 inch line to criterion than a 3 inch line. The line could be gradually lengthened as the learner's proficiency in cutting increased. Another possible modification is that the width of the line could be increased to make it easier for the learner to cut on the line. This change, too, would gradually be eliminated as the learner's skill increased. Even the thickness of the paper on which the line is drawn could be altered to facilitate pupil learning.

Color (making the correct choice blue initially), size (making the correct choice larger), and the number or amount of stimulus materials (starting with two choice rather than four choice problems) are components of conditions that can be altered to facilitate learning. Any changes that are made in the conditions must be systematically eliminated before the learner can be said to have mastered the terminal objective.

Practice exercises: Following a sequence of three oral directions
Shooting foul shots in basketball
Finding the main thought in a story

Method 6

The final method of task analysis is used most successfully with goals from the affective domain. Hannum (1974) has pointed out that the purpose of task analysis in this domain is not to arrive at a sequential list of subgoals but rather to identify the specific behaviors that signal attainment of the goal. Special teachers frequently set instructional goals like "has a good self concept" and "works hard." It is difficult to objectively measure attainment of such goals until they are task analyzed.

Mager (1972) described a process of goal analysis for breaking down complex goals. Teachers interested in analyzing affective goals are encouraged to review his book for more complete guidelines. His process is divided into the following steps:

1. Write the goal on paper.
2. List the observable behaviors a person would exhibit to show that he or she has attained the goal.
3. Review the list, discarding those behaviors that should not be included and identifying those in need of clarification.
4. Describe what is intended for each goal on the list by determining how frequently or how well the behavior must be performed.
5. Test the statements for adequacy and completeness by determining whether the behaviors in the final list represent comprehensive attainment of the goal.

Practice exercises: Accepts criticism well
Is a good worker
Has leadership qualities

Checking a Task Analysis

Each time an initial analysis is completed the analyst should briefly review it to make sure that it conforms to certain basic requirements. The following questions may be used as a checklist for this purpose.

1. Are all of the subtasks stated in observable, measurable terms? Would all persons looking at the subtasks interpret them the same way?
2. Are any critical steps omitted? Could a learner perform the major task after mastering only the subtasks?
3. Are all the subtasks relevant to the major task? Are unnecessary subtasks included?
4. Are any of the subtasks so minute as to be unnecessary? Could any be combined without losing information?
5. Are the subtasks arranged in logical order?

The ultimate test for correctness and completeness is to construct a program based on the task analysis and to implement the program with a learner from the target population. Feedback obtained from observation of the learner's progress allows the analyst to add, correct, or delete those steps not entirely appropriate.

SUMMARY

This article is intended to serve as a guide for the special class teacher in using the skill of task analysis in the classroom. Like so many other teaching skills it is necessary for the teacher to practice task analysis before it becomes the useful tool we have described. Reading extensively on the subject is less instructive than starting work on a task that is particularly difficult to analyze. The first few attempts are likely to be of lower quality than later ones, but with practice in applying the six techniques outlined in this article, the speed and quality of the analyses will undoubtedly improve. As teaching programs and evaluative measures are drawn from the analyses, we think the gains seen in pupil performance will be sufficient to sell teachers on the usefulness of the process.

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The Assessment Tool that Meets Your Needs: The One You Construct

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■ Special education teachers frequently confront a common dilemma: Supervisors and parents expect individualized instructional programs based on records that seldom provide significant information from which to determine individually appropriate objectives. Often the teacher receives little more than the nonspecific results of standardized tests. Thus, in order to obtain the information necessary to determine appropriate objectives, the teacher must conduct some type of informal assessment.

To accomplish this task, an informal assessment tool can be designed which provides the teacher with information on the student's level of functioning in various teacher determined skill areas. This information can be used to assist the teacher in establishing individually appropriate educational objectives.

DETERMINE OBJECTIVES FOR THE CLASS

The teacher's first task is to list those objectives or skills which students should develop over a specific time period, such as a month, term, or year. A helpful first step is identification of the various skills the least and most advanced students currently are attempting to develop. The teacher should then project what skills the most advanced students should move toward during the designated period. Those projected skills, along with those which the least advanced students are mastering, will indicate the extremes of the skill range that must be covered by the Informal Teacher Constructed Assessment Tool (ITCAT).

In some classrooms, objectives are established administratively. In others, there are informal but traditional expectations regarding the skills children in a specific classroom should develop. Regardless of how classroom objectives are established, in order to construct an ITCAT the teacher must attempt to state objectives in terms of behavioral skills. A list of skills might include:

1. The child is able to point to nine basic color cards on verbal request.
2. The child can name the numbers 1 through 10 when they are presented on flashcards.
3. The child can answer a series of simple questions, such as name and age.

BREAK EACH OBJECTIVE INTO PRIMARY ELEMENTS

The next step involves breaking each objective into two elements: (a) the specific skill required, and (b) the material used to display that skill. For example, skills such as naming, pointing, matching, and sorting can be displayed using materials such as objects, pictures, color cards, letters, and words. The breakdown of the three sample objectives would look like this:

Skill	Material
1. Point to	Nine color cards (red, blue, etc.)
2. Name	Printed numbers 1 through 10
3. Answer questions	Spoken words (from memory)

CONSTRUCT A CLASSROOM OBJECTIVES MATRIX

After each objective is divided into its skill and material elements, design a classroom objectives matrix. The matrix is constructed by arranging skills along one axis and materials along the other axis. It is helpful, but not necessary, to arrange skills from simple

From *TEACHING Exceptional Children*, Spring 1976, pp. 106–109.
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to complex and materials from concrete to abstract.

In the interest of convenience and space, it is helpful to use standard terms to identify certain skills frequently found on a classroom objectives matrix. Although a teacher could spend considerable time and effort attempting to find the "right" term, it is only necessary that the teacher define behaviorally the selected term and use the definition consistently. Some frequently used terms include:

- *Match:* The student must take an item from a pile and place it on the matching item from a duplicate set of materials spread out on the table.
- *Recognize:* The student must indicate, by pointing, touching, or picking up, an item that has been requested verbally.
- *Identify:* The student must verbally name a presented item.
- *Associate:* The student must crossmatch material without the use of spoken words; e.g., match the word *dog* with a picture of a dog.

After the classroom objectives matrix has been constructed, the appropriate cell for each objective should be starred. When the teacher begins construction of the assessment tool, he will know that each starred cell must be represented by an assessment item. Figure 1 is a classroom objectives matrix which delineates the objectives for one classroom.

FIGURE 1
A CLASSROOM OBJECTIVES MATRIX

	Skill						
Material	*Match*	*Sort*	*Recognize*	*Identify*	*Use*	*Associate*	*Sequence*
Motor	•••						
Object	•••	•••	•••	•••	•••		
Picture	•••	•••	•••	•••	•••	•••	
Color	•••	•••	•••	•••	•••	•••	
Shape	•••	•••	•••	•••	•••	•••	
Printed number	•••	•••	•••	•••	•••		•••
Printed letter	•••	•••	•••	•••			•••
Printed word	•••	•••	•••	•••		•••	
Printed sentence				•••	•••		
Other symbols	•••	•••	•••	•••	•••	•••	•••
Spoken sound					•••		
Spoken word					•••		

DEVELOP ASSESSMENT ITEMS

Items must now be developed which assess each starred cell in the matrix. Since the development of representative items can be a difficult task, whenever feasible the assessment should be a complete representation of that cell's objective(s). For example, one cell lists the recognition of nine colors. The teacher could randomly select four or five colors for the ITCAT, or a complete representation of all nine colors could be used. The major constraint on using complete representations, however, is that the time required to conduct the ITCAT is lengthened considerably.

In determining test items and arranging their presentation order, the teacher should move across the skill areas using one material at a time. Using the printed number cards, for example, the teacher should assess the child's ability level in each of the various skill areas, from matching through sequencing. This procedure is more efficient because it does not require the constant shifting of materials, and it is not as tedious as repeating the same skill with six or seven materials.

LIST THE ASSESSMENT PROCEDURES

The listing of assessment procedures is an essential task. A list will enable team teachers or student teachers to conduct the ITCAT. A teacher may also want to use the ITCAT again at a later date to evaluate student skill development and/or skill generalization.

A standard format is especially useful in writing assessment procedures. The format's categories should accommodate all the information required to conduct the ITCAT. The sample format shown in Figure 2 allows systematic recording of assessment procedures in a concise and complete manner.

DESIGN A DATA SHEET

Whenever an ITCAT is conducted, the results must be recorded. This written record or data sheet will make it possible to analyze the results and to determine appropriate objectives. The data can be used as a pretest record if the teacher intends to use the ITCAT for learner progress evaluation.

FIGURE 2
ASSESSMENT PROCEDURE RECORDING FORMAT

Item	*Materials*	*How materials are arranged*	*What the teacher says or does*	*Correct response*	*How item is scored*
Recognize colors	Nine 2 x 2 inch squares of different colors	All nine cards are placed before student	"Point to yellow" (red, green, etc.)	The child points to, touches, or picks up color requested	Mark data sheet only if correct response is given
Identify numbers	Numbers 1 through 10 printed in black on white 4 x 4 inch cards	One card is held up at a time	"What number is this?"	The child says appropriate number	Mark data sheet only if correct response is given
Answer questions	Card listing question	NA	Asks question, e.g., "What is your name?"	The child answers question appropriately (acceptable answers should be listed on question card)	Mark appropriate blank: correct response, incorrect response, no response

FIGURE 3
SAMPLE DATA SHEET

Student: _____ Teacher: _____

Date: _____ Location: _____

1.0 MOTOR IMITATION	CR	$\overline{CR}$	$\overline{R}$
Tap table.	0	0	0
Tap head.	0	0	0
Raise hand.	0	0	0
Clap hands.	0	0	0
Stand up.	0	0	0

	Match	*Sort*	*Recognize*	*Identify*	*Questions or tasks*	CR	$\overline{CR}$	$\overline{R}$
2.0 OBJECTS	2.1	2.2	2.3	2.4	2.5			
Shoe	0	0	0	0	Which do you color with?	0	0	0
Glass	0	0	0	0	Which do you wear on your head?	0	0	0
Hat	0	0	0	0	What do you do with this? (hat)	0	0	0
Toothbrush	0	0	0	0	What do you do with this? (glass)	0	0	0
Dish	0	0	0	0				
Spoon	0	0	0	0				
Crayon	0	0	0	0				
Towel	0	0	0	0				
Soap	0	0	0	0				
Comb	0	0	0	0				
3.0 PICTURES	3.1	3.2	3.3	3.4	3.5			
Shoe	0	0	0	0	Which do you eat with?	0	0	0
Apple	0	0	0	0	Which do you wear on your feet?	0	0	0
Hat	0	0	0	0	What do you do with this? (comb)	0	0	0
Airplane	0	0	0	0	What do you do with this? (crayon)	0	0	0
Comb	0	0	0	0				
Car	0	0	0	0				
Hat	0	0	0	0				
Dog	0	0	0	0				
Crayon	0	0	0	0				
Ball	0	0	0	0				
4.0 COLORS	4.1	4.2	4.3	4.4	4.5			
Red	0	0	0	0	Which is the red crayon?	0	0	0
Blue	0	0	0	0	Which is the blue button?	0	0	0
Green	0	0	0	0	What color is your shirt/dress?	0	0	0
Brown	0	0	0	0	What color is my hair?	0	0	0
Black	0	0	0	0				
Orange	0	0	0	0				
Purple	0	0	0	0				
White	0	0	0	0				
Yellow	0	0	0	0				
5.0 SHAPES	5.1	5.2	5.3	5.4	5.5			
Circle	0	0	0	0	Which is the square box?	0	0	0
Square	0	0	0	0	Which ashtray is diamond shaped?	0	0	0
Triangle	0	0	0	0	What shape is this button? (square)	0	0	0
Star	0	0	0	0	What shape is this ball?	0	0	0
6.0 NUMBERS	6.1	6.2	6.3	6.4	6.5			
1	0	0	0	0	What time is it? (3:00)	0	0	0
2	0	0	0	0	What time is it? (7:30)	0	0	0
3	0	0	0	0	Count to 10.	0	0	0
4	0	0	0	0	Give me two crayons.	0	0	0
5	0	0	0	0	Give me two crayons and three pegs.	0	0	0
6	0	0	0	0	What number comes after 2?	0	0	0
7	0	0	0	0	What number comes before 5?	0	0	0
8	0	0	0	0				
9	0	0	0	0				
10	0	0	0	0				
7.0 LETTERS	7.1	7.2	7.3	7.4	7.5			
A	0	0	0	0	Spell your first name.	0	0	0
B	0	0	0	0	Spell your whole name.	0	0	0
C	0	0	0	0	Spell (the day).	0	0	0
X	0	0	0	0				
W	0	0	0	0				
S	0	0	0	0				
Y	0	0	0	0				
T	0	0	0	0				
E	0	0	0	0				
O	0	0	0	0				
8.0 WORDS	8.1	8.2	8.3	8.4	8.5 Association	Tree	Apple	Telephone
Go	0	0	0	0	Picture/word	0	0	0
Monday	0	0	0	0	Word/picture	0	0	0
Hat	0	0	0	0				
School	0	0	0	0	8.6 Sentence reading		CR	$\overline{CR}$ $\overline{R}$
Ice cream	0	0	0	0	"Go to school."		0	0 0
Red	0	0	0	0	"Today is Monday."		0	0 0
School	0	0	0	0				
Open	0	0	0	0	8.7 Sentence comprehension		CR	$\overline{CR}$ $\overline{R}$
Star	0	0	0	0	"Hold up the crayon."		0	0 0
Is	0	0	0	0	"Put on the hat."		0	0 0

9.0 MONEY	9.1	9.2	9.3	9.4	9.8	CR	$\overline{CR}$	$\overline{R}$
Penny	0	0	0	0	How many pennies in a nickel?	0	0	0
Nickel	0	0	0	0	Which is more, a penny or a dime?	0	0	0
Dime	0	0	0	0	Give me eight cents.	0	0	0
Quarter	0	0	0	0	Match the coin to the price tag:			
Dollar	0	0	0	0	1¢	0	0	0
					5¢	0	0	0
					10¢	0	0	0
					25¢	0	0	0
					$1.00	0	0	0

10.0 VERBAL REQUESTS	CR	$\overline{CR}$	$\overline{R}$
Stand up.	0	0	0
Put the block inside the box.	0	0	0
What is your name?	0	0	0
What day is today?	0	0	0
What is the weather today?	0	0	0

KEY
CR = Correct response
$\overline{CR}$ = Incorrect response
$\overline{R}$ = No response

The ordering of items on the data sheet should follow the format used on the assessment procedure recording sheet. The data sheet's design should allow for the recording of information particular to the teacher's specific needs. However, two items are required: (a) what the student was asked to do, and (b) whether he did it correctly. The teacher may provide space for recording additional information such as the time required to complete each item or the specific nature of each error (i.e., student was asked to "point to red"; he pointed to blue).

On the data sheet (Figure 3), only one response blank is provided for most items. This blank is marked when the student makes a correct response. On certain items, however, three alternatives are provided: (a) correct response, (b) incorrect response, and (c) no response. This option to the "questions" and "tasks" items was added because the *no response* alternative may be particularly significant.

CONDUCT THE ASSESSMENT

Prior to the actual assessment, the teacher should prepare the diagnostic environment. The location should be one in which individual or small group activities generally are conducted. Actual location preparation should include arranging the required materials, procedure forms, and data sheets.

The teacher must remember that the assessment is informal in nature. The formal controls associated with most standardized tests need not apply. It is not an endurance test; if the student or the teacher tires, a break is in order. If necessary, the session can conclude, to be completed the next day. If it appears that it is an "off day" for the student, the teacher should stop and begin another day. It is important to remember that the teacher is attempting to determine the student's current skills in order to determine objectives to teach him new skills.

As for the actual assessment procedure, it is recommended that the student receive praise for all responses, and that the student receive his usual reward. Note on the data sheet what reward is used if it is one other than or in addition to verbal praise. The teacher should make any additional comments on the data sheet that will later assist in the total decision making process.

SUMMARIZE THE RESULTS

When the assessment is completed, it is necessary to put the raw data into a form that will simplify the decision making process. A simple summary sheet designed to represent all assessment items will provide the teacher with a clear picture of the assessment results.

The summary sheet shown in Figure 4 is a

modified version of the classroom objectives matrix. The materials are arranged across the top with the skills down the side (*use*, *associate*, and *sequence* have been combined into *questions or tasks*). In each resulting cell that is ITCAT assessed, place the number of items which assess that cell. The numbers are then tallied both horizontally (skill across materials) and vertically (material across skills). The resulting form is the basic summary sheet.

Assessment results must be transcribed from the data sheet to the summary sheet by summing the number of correct responses for each cell, recording that figure in the appropriate summary sheet cell, and then totaling the rows and columns.

Student: Ann Marie Teacher: A. Chalmers

Date: 6 November Location: BATU

Skill	Material: Motor imitation	Objects	Pictures	Colors	Shapes	Numbers	Letters	Words	Money	Verbal requests	Total	Percent correct
Match		10/10	10/10	9/9	5/5	10/10	10/10	9/10	5/5		68/69	98%
Sort		3/10	4/10	6/9	2/5	2/10	1/10	2/10	1/5		21/69	30%
Recognize		10/10	10/10	9/9	5/5	8/10	2/10	1/10	0/5		45/69	65%
Identify		10/10	10/10	9/9	5/5	8/10	1/10	0/10	0/5		43/69	62%
Questions or tasks	5/5	4/6	4/6	4/6	4/6	6/7	0/5	Assoc. 0/6	0/6	1/6	28/55	51%
								Read. 0/2	Price tag 0/5			
								Comp. 0/2				
Total	5/5	37/66	38/66	37/66	21/36	34/67	14/67	12/50	6/38	1/5	205/330	62%
Percent correct	100%	84%	86%	92%	87%	72%	32%	24%	21%	20%	62%	

FIGURE 4
SUMMARY SHEET

ANALYZE THE RESULTS

The summary sheet can assist the teacher in analysis of results and in the decision making process. The teacher first determines the percentage correct for each row and column (see Figure 4). Although percentages are extremely general indicators, they often provide valuable information. Particular attention is paid to those percentages over 80 and below 30.

An analysis of the student's summary percentages indicate that the child:

1. Cannot sort (30%).
2. Has difficulty working with letters (32%), words (24%), and currency (21%).
3. Has no difficulty with matching (98%).
4. Has little difficulty with colors (92%), objects (84%), pictures (86%), or shapes (87%).
5. Has no difficulty with motor imitation (100%).
6. Has considerable difficulty in responding to verbal request (20%).

To avoid overgeneralization, the teacher must then assess each cell and circle it if the percentage is 90% or better (see Figure 4). This circling process frequently aids in producing a clear picture of the results. The analysis can then become more specific:

1. Sorting presents a problem across all materials.
2. Objects, pictures, colors, and shapes present no problem except in the sorting skill area.
3. Numbers present some difficulty.
4. Recognition is a definite problem with letters, words, and currency.
5. Identification and questions are also definite problem areas across letters, words, and currency.

After this list is compiled, the teacher should check the data sheet for any suspicious results. In this case, the eight of ten correct in number recognition and number identification suggests there may be some type of systematic error (e.g., the student missed 6 and 9 in both tasks).

A review of the analysis will aid the teacher in determining appropriate objectives for the student. The student will be able to:

1. Sort colored cards (nine basic colors).
2. Recognize, by pointing, touching, or picking up, numbers 1 through 10 printed on flashcards.
3. Recognize, by pointing, touching, or picking up, lower case alphabet letters printed on flashcards.
4. Recognize, by pointing, touching, or picking up, certain items of currency (dime, nickel, penny, quarter, and dollar).
5. Verbally answer simple oral questions (from a specific list of questions).

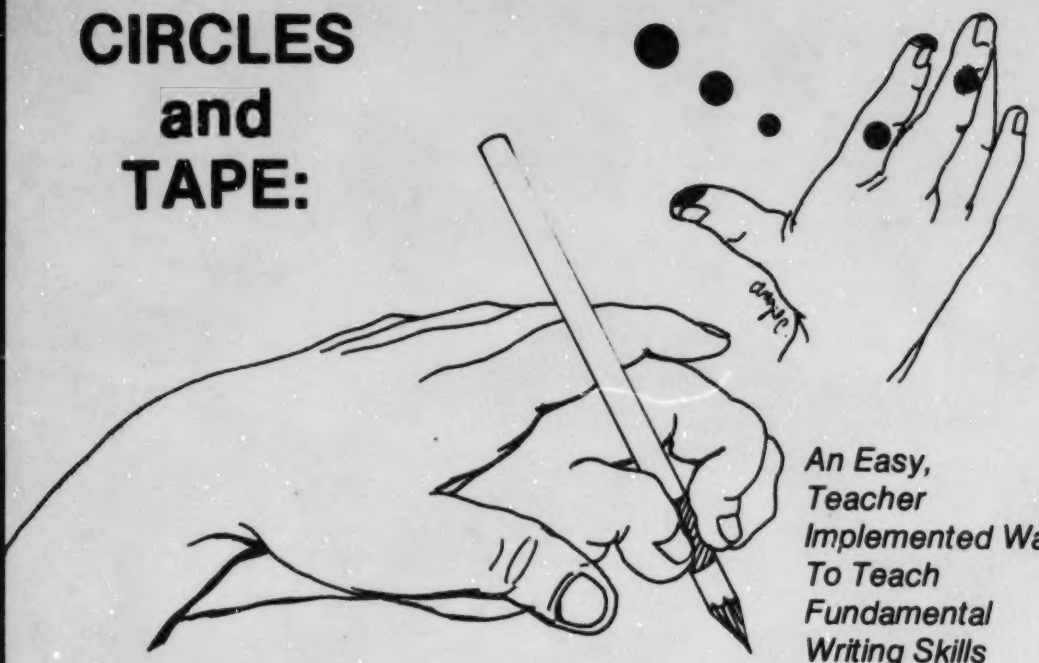
(Criteria: 90% correct for three consecutive tutorial sessions)

A TOOL TO MAXIMIZE CAPABILITIES

The ITCAT is designed to provide the teacher with a flexible tool to assist in determining individually appropriate instructional objectives. It is unlikely, therefore, that any two teachers' ITCAT's will be the same. The sample ITCAT explained here was used with moderately retarded students, but the procedure is appropriate for use with many exceptional children. Although the ITCAT is primarily a device for determining individual objectives, it can also be used as a progress evaluation device and as a skill generalization device.

It is important to note that the ITCAT is not an identification or placement device. Rather, it is a tool to assist the teacher in establishing specific educational objectives for individual students. A society which proposes that every individual is valuable in his own right must make every effort to give each individual the opportunity to develop to the full extent of his capabilities. This does not mean that each child should receive the same education, but rather that each child should receive from education those skills which will allow him to maximize his options within his society. Individual assessment can facilitate this process for special educators by providing a basis for the development of alternative instructional tactics.

CIRCLES and TAPE:



An Easy, Teacher Implemented Way To Teach Fundamental Writing Skills

MARGARET A. MENDOZA
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■ One problem that is common to children in preschool and the early primary grades is the development of proper handwriting skills. Frequently, teachers find that children hold their pencils awkwardly and in ways that prevent adequate control. Different methods have been tried to alleviate this problem. One approach is to have young children use pencils that are much thicker than normal, although Durkin (1972) believes this to be ineffective and unnecessary. Probably the most common method for teaching handwriting skills is to model the correct response, shape the child's fingers around the pencil, and then give corrective feedback until the pencil is held properly. These procedures can easily consume a great deal of the teacher's time.

When pencil holding became a problem at the Edna A. Hill Child Development Laboratory in the Department of Human Development at the University of Kansas, a new strategy for teaching this essential skill was developed. The new technique used a combination of color coding of pencil and fingers, "fading" of these temporary helping cues, and praise. This method was successful in helping the teachers improve the pencil holding of their preschool children who appeared to lack sufficient skill or control to hold a pencil and use it for academic responses on paper.

MARTY AND GENE: TWO CASE STUDIES

While the new strategy, called Circles and Tape, was designed so that any teacher could use it, two 4 year olds, Marty and Gene, provided the original motivation that led to its development.

Marty was under good instructional control and usually tried hard during work periods. However, he consistently used an awkward four or five finger grip to hold his pencil. Gene, on the other hand, had difficulty with skills and concepts in general and was off-task a great deal during instructional periods. He was behind most of the other children his age, both academically and socially, and was slow to follow instructions. He frequently held his pencil in a tightly closed fist, or loosely with several combinations of fingers.

From *TEACHING Exceptional Children*, Winter 1978, pp. 48–50.
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THE CLASSROOM ENVIRONMENT

Marty and Gene's preschool class met four mornings each week. The children were given instruction in a variety of social and academic areas, including beginning academic work in reading, arithmetic, and handwriting. The children met for 15 to 20 minutes each day in small groups to work on individualized curriculum materials under a teacher's supervision.

On numerous occasions the teacher had attempted to improve the children's pencil holding by modeling the correct grip and by giving verbal instructions. Characteristically, the children would hold their pencils correctly for a few minutes after a demonstration by the teacher, then revert back to their usual grip. Because this problem was prevalent with children in beginning academic training, it was clear that a better procedure was needed.

PENCIL HOLDING DEFINED

The first step in designing the procedure was to agree on exactly what correct pencil holding looked like. After considerable deliberation, pencil holding was defined as follows:

- The pencil is held by the thumb, index, and middle fingers at approximately 1 inch above the writing point.
- The pencil rests primarily on the near (proximal) side of the middle finger, just below the first joint.
- The end of the thumb is placed on the other side of the pencil opposite the middle finger.
- The end of the index finger rests on the top surface of the pencil between the other two fingers.
- The remainder of the pencil rests in the rounded space between the second joint of the thumb and the second joint of the index finger.

When the children held a pencil using only the three fingers listed for correct holding, but without each finger in proper position, their grips were considered to be "approximately correct." Incorrect pencil holding included use of the fourth and fifth fingers, as well as not holding the pencil at all.

CIRCLES AND TAPE

Prior to the start of each instructional period, colored circles were applied to the fingers of the children's preferred writing hands using felt tipped pens and a circle template. A red circle was placed on the end of the thumb, a yellow circle on the tip of the index finger, a green circle on the near (proximal) side of the middle finger just below the first joint, and a blue circle on the near side of the index finger between the second and third joints. The diameter of the circles at the start of the training procedure was ¼ inch. Later, Marty's circles were faded to 3/16 inch, then 1/8 inch, and finally the circles were completely eliminated. Gene's circles were faded to 3/16 inch.

Strips of plastic tape that matched the colors of the circles on the children's fingers were applied to the pencil. Red, yellow, and green strips measured 1 x ¼ inches and were placed lengthwise starting ¾ inch above the pencil point. Blue tape ¾ inch wide was placed completely around the circumference of the pencil at a point appropriate for the size of the child's hand. Later, the tape on Marty's pencil was faded to ⅛ inch in length at the same time the circles were decreased to 1/8 inch.

The following instructions were given to both children on the first day of Circles and Tape. "I am going to put these colored circles on your fingers so that you can use a very special pencil for me in mathematics (handwriting). See, Marty (Gene), the colors match these strips of tape on the pencil. Let's match your fingers to the pencil before we start working."

As the size of the circles was decreased the teacher said, "Look, Marty (Gene), these circles are smaller now. That's because you're doing such a good job of holding your pencil that you don't need them as much." The final instructions for Marty were, "You're holding your pencil so well now that you don't even need the circles and the special pencil. Let's see how well you can do with a regular pencil today."

Lavish praise for correct pencil holding and for approximations was given throughout the training. The number of praise statements was gradually reduced but never completely eliminated.

The training was suspended periodically to determine whether the children could now hold their pencils properly without the color coding. No circles, tape, or praise for correct pencil holding were used on these days.

RECORDING

So that teachers could tell how successful the procedure was, a simple recording procedure was devised that would not interfere with the on-going instruction. On a cassette tape, the teacher recorded the numerals 1 through 30 at 30 second intervals. The tape was started at the beginning of each daily session, and as each number was sounded, the teacher looked at the child's hand and recorded either the letter *C* for correct, *A* for approximation, or */* for incorrect in the space opposite that numeral on a recording sheet.

To determine whether the teacher could reliably record this information during the normal routine, an independent observer used the tape to record the data simultaneously on 17 separate occasions. Observer reliability was determined by dividing the number of intervals in which the independent observer and the teacher agreed as to the occurrence of the behavior by the total number of responses. The percent of agreement reliability ranged from 72% to 100% for Marty and 70% to 100% for Gene.

SUCCESS

The results of Circles and Tape are presented in Figure 1. The top half of the figure shows the results for Marty, while the bottom half shows Gene's results. The graph shows the percentage of the 30 daily checks during which Marty and Gene were holding their pencils correctly.

Before the new strategy began (labeled Baseline in Figure 1), Marty never held his pencil correctly and held it approximately correct only once. When Circles and Tape was used, correct pencil holding responses increased and remained above 70% after a few low days. When the circles and tape size were reduced, correct pencil holding remained high. There was also no appreciable reduction in the response level when training was suspended (labeled Probe on the graph) or when only praise was given without using Circles and Tape.

Before training began, Gene held his pencil "approximately correct" a few times. When the training procedures were implemented, the number of approximations and correct pencil holding increased. During the probes there appeared to be a drop in the percentage of correct and approximate responses, but when the procedures were reintroduced with a smaller circle size there was a gradual improvement in proper pencil holding.

ADVANTAGES OF CIRCLES AND TAPE

By color coding fingers and pencils, gradually eliminating these aids, and giving lavish praise, teachers can quickly train young children to hold their pencils correctly. There are some distinct advantages of Circles and Tape over other methods.

First, an immediate effect was produced. The children, especially Marty, appeared to learn quickly, thus eliminating the need for a lengthy, frustrating training procedure. The minimal performance made by Gene prior to the introduction of the training program was probably a reasonable indication of the lack of effec-

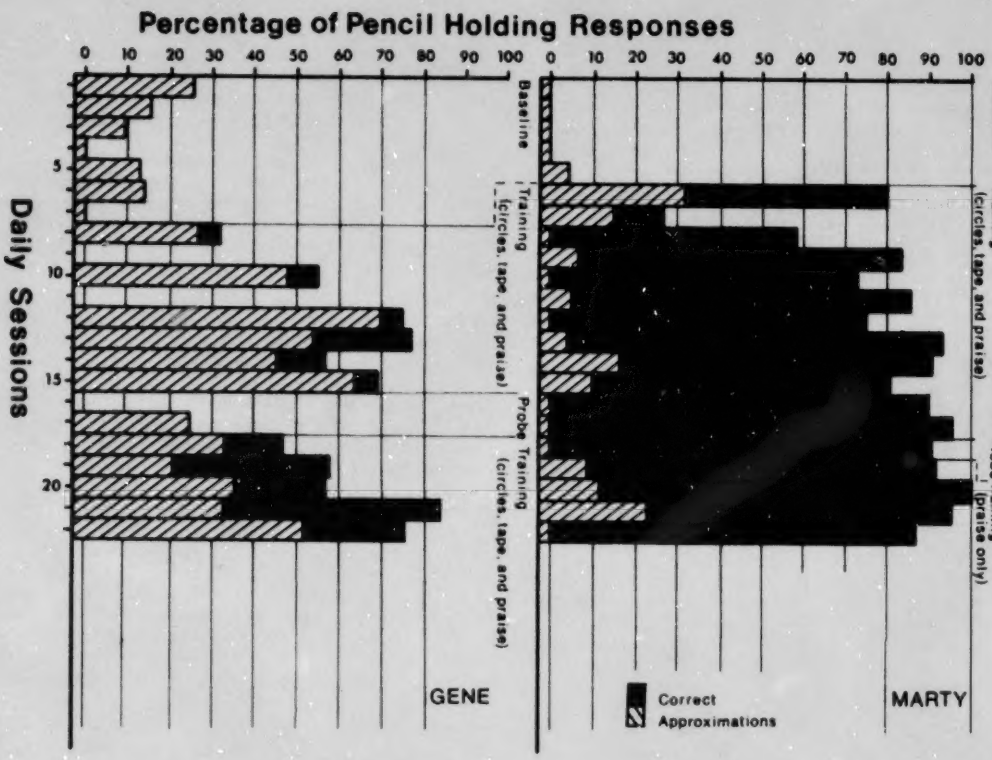

FIGURE 1: *The percentage of pencil holding responses made by Marty and Gene. The daily percentage of responses scored as approximations is shown by the bars with hatch-marks. The shaded portion of the bars indicates the proportion of pencil holding responses that were scored as "correct." Even an "approximation" indicated considerable improvement for these children.*

tiveness of the teacher's persistent nags and corrections. Characteristically, the teacher's previous procedure had been to place a pencil in the child's hand the proper way and ask him to try to always do it that way. The result was usually a quick return to the boy's original tense grip. With Circles and Tape, however, the color coding gave Gene and Marty immediate feedback as to the adequacy of the pencil hold and enabled the boys to make their own corrections.

Second, the cost of implementing these procedures was minimal. All of the materials used are commonly found in most preschool or elementary classrooms or can be purchased at a nominal cost.

Third, the procedures were acceptable to both the teacher and the children. Marty and Gene were cooperative in allowing the teacher to apply the colored circles to their fingers and enjoyed the attention from their peers. The tape recorder provided the teacher with a method of making well documented records of the children's daily performance and made it unnecessary to watch time intervals on a clock or watch. Also, the class appeared to completely ignore the tape after the first day.

Finally, and perhaps most importantly, the training and recording procedures were totally implemented by the classroom teacher, who was simultaneously responsible for the academic training of an entire group of children, all of whom were working at individual placements in their materials.

Circles and Tape is recommended to the busy classroom teacher as a way to produce the quick and efficient acquisition of an important skill. The recording procedure is recommended as a reliable, easily used, unobtrusive measure of daily performance.

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The preparation of this manuscript was supported in part by Grants #OEG-0-8-522422-4433 and #GOO7507226 from the US Office of Education, Department of Health, Education and Welfare to the University of Kansas, Department of Human Development, Behavior Analysis Follow Through Program. However, the opinions expressed herein do not necessarily reflect the position or policy of the US Office of Education, and no official endorsement should be inferred.

Punch • Me, • I • Earned • It •

FRANCES CROW
DEDE JOHNSTON
MARGERY MEEKS
PHILLIP WILSON

It was 1:30 p.m. on Thursday and time to add up the reward points earned during the day. The conversation went something like this:

"Well, Jack, it looks as though you really had a good day. You earned 36 points. How did you do it?"

Jack shrugged his shoulders and replied with a grin, "I don't know. Just worked hard, I guess."

"You've earned enough points to go outside, Jack. Is that where you want to go?"

"Yes," said Jack as he zipped up his jacket.

"Let's see now, Laura. How many points do you have here?"

"Yesterday, I earned 33 points and I went to quiet games but today I earned 34 points. I want to go to blocks with Roberta because she earned 34 points, too."

"Very good. Let's see where it is that you didn't earn your two points."

"Oh, I missed my behavior point in ego group and my 'coming in quietly' point in phonics."

"I bet you'll earn them tomorrow, won't you?"

Laura answered with a grin.

"Now, who's next? Oh, yes, here's Michael. How did it go, Michael?"

"Well, I got 32 and I'd like to go out, but I guess I'll go to coloring."

"O.K., Mike, maybe you'll earn enough tomorrow. What kept you from earning your points?"

Michael responded with a shrug.

"Well, we can't be perfect every day. You're doing so much better than when you first came here, aren't you? After all, 32 is good enough for a reward, so we must think that's pretty good."

Just then Ronald came into the room. "Well, here I am," he declared. "I got only 31 points, so I have to go to counseling." Ronald proceeded to the counseling area and sat down to wait for the counselor and any other students who had not earned enough points to go to one of the reward centers.

• Scenes like the one described above can be seen and heard every school day at 1:30 p.m. at the McVey Diagnostic Impact Center in Newark, Delaware. The center was started in 1971 to diagnose and treat kindergarten through 5th level children with social, emotional, intellectual, and/or learning difficulties, using a nongraded, noncategorical approach.

After the center was established, it did not take long for the four teachers and three aides to determine the need for a behavior modification technique to teach children new academic, social,

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From TEACHING Exceptional Children, Fall 1975, pp. 13–17.
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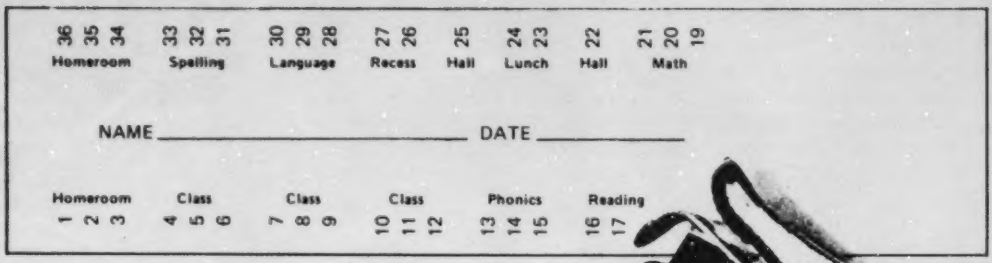

FIGURE 1

and emotional behavior. Various methods were applied but not consistently or successfully.

Finally, the center's principal, Willis A. Proctor, suggested the use of a punch card to reward good behavior. Since that time, and with several modifications, the present punch card system based on earned points for rewards and interval reinforcements has evolved. It has proved quite successful and easy to use when the staff has good cooperative rapport and consistency.

USING THE PUNCH CARD

The staff and children at the McVey Center understand that each child may earn three points in each 20 minute work period. The first point in each class is punched for coming into the area quietly; the second point is punched if the assigned task is completed; and the third point is punched for acceptable behavior (see Figure 1).

Every morning the teacher sits on a large rug as the children arrive. She has a punch card for each child, which has been prepared in advance by writing in the child's name and the date. She also has a paper puncher which she uses to punch the earned points. A paper puncher with a metal strip attached to catch the paper is available commercially. This type of puncher avoids pieces of punched paper being scattered around the school. The teacher empties the puncher into a wastebasket at her convenience during the day.

Each child is expected to walk off the bus into his class, hang up his coat, and take a place quietly in the circle on the rug. If the child successfully completes these steps the teacher punches the first point on the child's punch card while complimenting the child on the completion of his task. If a child chooses not to follow through on the expected steps, the teacher will simply mention when he does join the circle that he did not earn his first point, but that he can still earn the others. Sometimes more explanation is given as to why the point was not earned or, in order to place more responsibility on the child, he might be asked if he earned the point.

Because of the class routine, the children do not have to ask the teacher to "punch me." They know their first point will be punched at the beginning of each class period. The teacher then holds the punch cards until the end of the period when the children again sit in a group to receive their punch cards. They know their work and behavior points will be punched at that time if they have been earned. If the child has worked to his capacity during the work period, the second point will be punched. If his behavior has been satisfactory (e.g., sitting still, minding his own business), the third point is punched. The same verbalization is used as with the first point. The teacher and aides are careful to be consistent about the requirements for each point.

At the end of the day, the teacher and the child

count earned points. The child may choose a reward center based on the number of points earned during the day (see Table 1). The staff decided that 32 points or more out of a possible 36 would constitute a reward. If 36 or 35 points are earned the child may choose any of the four rewards. If 34 points are earned he may choose any of the rewards for 34 points or below. If 33 points have been earned the child has two choices, and with 32 points he has only one choice.

The punch card is the child's ticket into the reward area. It must be presented to show the correct number of points were earned. If a child earns 31 points or less, he goes to counseling, which is an opportunity for the teacher and the child to talk about what happened during the day and how the child can earn more points the next day. The punch card is particularly useful here because it is a tangible indication of behavior patterns. It may also indicate a need to reexamine the task requirement.

Many of the children take their punch cards home at the end of the day. Because the parents have had the point system and the use of the card explained to them previously by the teachers, they may praise the child for his good day.

ADAPTING THE PUNCH CARD

The flexibility of the punch card meets the needs of the individual students, the group contingency needs, and the communication needs demanded by a team teaching situation.

Individual student needs, as embodied in behavioral or academic problems, are concisely and tangibly handled with the McVey punch card. For example, a child who consistently has difficulty controlling his temper may earn an additional point each 20 minute period that he controls his temper (e.g., does not cry, scream, or lash out at others verbally or physically). A graph recording the number of points he earns daily for controlling his temper may be created by the teacher and the child, with a reward for a designated number of perfect scores.

A child who is nearing the completion of his stay at the center may be placed on a long term point contingency to determine the exact date of his or her departure. For example, the child may be permitted to color in one block of a maze each day that 36 points are earned. When the maze is completed, the child may be considered ready to depart.

Communication needs among the team members are met through the tangible nature of the paper punch card. A child may verbalize in the morning what he intends to work on that day to earn his points; for example, "I am working on saying full sentences" or "I am working on raising my hand and not calling out." The teacher may then write this on the available space at the bottom of the punch card for the child and other teachers to see.

Events to be remembered can easily be recorded on the card. For instance, a child may be

TABLE 1
Reward Schedule

scheduled to meet with a speech therapist at 11:10. His card may be circled at the appropriate punch number and marked *Speech*, thus reminding both the teacher and the child of the appointment.

Individualized contingencies are communicated to the team members by using the available space at the bottom of the punch card. An example of this might be a child whose behavior point is specifically defined (e.g., the child must come directly to the work area and remain seated for the entire period). A notation to this effect on the card facilitates consistent action among the team members.

SPECIFIC ADVANTAGES OF THE PUNCH CARD

The McVey punch card system proved advantageous in many respects.

1. *The punch card system reflects reality.* Just as adults earn money with which they may buy what they want, students earn points to "buy" desired rewards.
2. *The system relies on natural consequences.* If the student loses his card, or fails to earn points, the natural consequences of these actions are immediately known. The child is made responsible for his own behavior. The teacher's role is to maintain the system of natural consequences, not to administer reward and punishment.
3. *The method of accounting is a simple one.* It consists of counting up the number of points at the end of the day. Throughout the day no accounting need be done. The teacher records the daily total for each child to chart progress.
4. *The system accommodates flexible goals.* The student may work on a variety of goals, both long and short term. The punch card can thus be tailored to the individual. Also, certain points on the card may be more specifically defined; e.g., a particular child might earn his behavior point by raising his hand.
5. *There is little need for verbalization.* When a child falls short of a behavior or work standard, all that need be said is "I am sorry that you did not earn your point." Excessive verbal and negative comments are kept to a minimum.
6. *The card is not easily lost, traded, or stolen.* The punch card is one single piece of paper. Earned points are indicated by punched holes. There is nothing to be traded or stolen. It is the child's responsibility to hold onto the card, which he guards like money.
7. *The system provides feedback to the teacher.* The punch card immediately reflects progress. Consistent patterns on the card point out potential problems to the teacher. For example, consistently unearned work points could indicate that the assigned tasks are not on the child's level.
8. *The system can be applied to unstructured situations.* Points are also earned in unstructured situations such as in the hall, at lunch, and in assemblies. These frequent problem areas are integrated into the system of natural consequences.
9. *Most importantly, the punch card system is a positive system.* The child earns points only for positive behavior, which is rewarded. Negative behavior is met primarily by the absence of the positive, rather than by being inadvertently rewarded.

GROUP PROCESSES FOR BEHAVIOR

The pow-wow is an important part of classroom activity.

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From TEACHING Exceptional Children, Summer 1976, pp. 136–139.
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Goal Setting

■ Teachers of emotionally disturbed children have always set goals for the children with whom they work. These goals help the teacher focus on specific strategies to be used to move the child from a special setting to a regular setting. Without some sort of goal setting on the teacher's part, programs lack direction and tend to become vague.

The purpose here is not to talk about goal setting by teachers, however, but to develop procedures for helping children set goals for themselves. This is seen as the first step in their achieving cognitive control—the ability to identify their own problem behaviors as well as alternatives to these problem behaviors.

The notion of children setting goals for themselves carries with it two important implications: (a) It means that children need to become aware of their problem behaviors and be able to verbalize them. (b) In the process of goal setting the child makes a commitment to change as well as a commitment to be an ally of the teacher in the change process. It is possible to change a child's behavior without a commitment, but the changes are easier when a commitment exists.

THE PROCESS OF GOAL SETTING

Goal setting is the first activity of each week. It is carried out in a group on Monday morning. The setting is a circle of chairs with the teacher included as part of the circle. Rules of behavior are set up to insure the orderliness of the meeting. The rules have nothing to do with the quality of goals suggested or with whether or not a child sets a goal. They refer only to the orderliness with which the meeting is carried out.

The purpose of the meeting is to help children set one goal for themselves relative to some aspect of their problem behavior. The child will work on the goal for a minimum of one week. To accomplish this the teacher goes around the circle asking each child to identify his goal. Occasionally, particularly when a child is new in the classroom, he may be unable to identify a goal. In this case, the teacher prods the child with some leading questions (e.g., What kinds of things do you have problems with in school? What things do you get in trouble for in school?). If this fails, the teacher could ask other group members what they think a good goal might be. If someone suggests a goal, the teacher should determine whether the original child will accept it. If the child does, then the goal is set. If there is still resistance on the child's part, the teacher should drop the issue and go on to another child. Later, when the group breaks up, the teacher should talk to the child individually and attempt to set the goal then.

As each child presents his goal in the meeting, the teacher records it on chart paper. When completed, the chart is posted in the classroom to serve as a visual reminder to the children during the week.

Children may be allowed to carry a goal from one week to the next. However, this should occur only if the child demonstrated that the goal was not fully achieved. Some children want to carry a goal over even though they have achieved it. Under these conditions the teacher encourages the child to select a new goal, explaining that the old one has already been accomplished.

The goals selected should always represent a challenge for the child. If the goal is too easy the child will not be truly involved in the program. If the goal is too hard it will be impossible for the child to achieve and frustration will occur. Figure 1 presents examples of goals set by children in an intermediate class for the emotionally disturbed.

FIGURE 1
SAMPLE GOALS

Linda:	I will not talk to my neighbor during study times.
Rusty:	I will not "bug" anyone when they have told me to stop doing so.
Carol:	I won't cuss at anyone—including the teacher.
David:	I will work in my Open Highways book more.
Tom:	I won't shout so much.
Sara:	I won't lose my temper when dumb things come up.

The Pow-Wow: Rationale and Objectives

■ Classroom teachers often have problems in managing behaviors on an individual basis due to the number of children in the class. The size of the class may limit the amount of time a teacher can spend with individual pupils. It has been stated that a teacher with problem children spends more time with these children anyway, so time spent in individual management programs is time well spent. This is true of course, but if teachers could use groups to accomplish behavior change, it might be possible to spend a little less individual time. The pow-wow technique may aid teachers in this area. Most teachers who have tried it report noticeable results in relatively short periods of time.

The pow-wow is not new nor is it inflexible. In fact, one of its advantages is that it can be modified fairly easily to fit a variety of situations. With only minor changes it can be used effectively with all school age children and with groups of varying size. Although it was designed for use with relatively small groups of 8 to 12 children, with some modification it could be incorporated into groups as large as 30.

Based on a theory developed by Glasser in his book *Schools Without Failure* (1969), the pow-wow is a classroom method that aids students in the development of personal responsibility for individual behavior. The pow-wow achieves this objective through a group process which:

- Requires each student to determine his own behavior goal.
- Aids each student in examining which specific events bring about certain behaviors.
- Provides a stimulus to students to become more observant of the positive behaviors of others.
- Provides an experiential setting for improvement of a student's self image.

SETTING UP THE POW-WOW

1. Seat the children in a circle.
2. Explain that this is a pow-wow and that they will each make a behavioral goal which they should attain by the next pow-wow.

3a. At the first pow-wow, begin with the child on your left and state something like the following to each child in turn: "If we had done this before you would now tell us whether or not you achieved your goal, and then we would ask the others if they thought you did. Since this is the first time we are doing this, you should make a goal for next time. Explain to the children what a goal is, giving examples if necessary. Goals must be stated in observable behavioral terms and must be observable in the classroom. At the first pow-wow, proceed to step 8 after the child has stated his goal.

3b. At the second and all following pow-wows, have the child on your left restate his goal. Read it for him if he does not remember it.

4. Ask the child if he achieved the goal. The child may only answer "yes" or "no" and may offer no excuses if the answer is "no."
5. Go around the circle asking the other children in turn if they feel the goal was achieved. If the answer is "no," elicit a specific instance. If none can be given then it is assumed that the child has achieved his goal.
6. After all the other children have been asked, return to the first child and ask him again whether or not he achieved his goal.
7. Ask the child to make a new goal.
8. Go around the circle asking the other children if they think the new goal is a good one. If someone says "no," elicit the reason.
9. Ask the child if he wants to keep the goal as stated or if he wants to change in light of the other children's comments. If the child wants to change, he may.
10. Write the goal on a large piece of paper next to the child's name.
11. Go around the circle asking for suggestions on helping the child achieve the goal.
12. Go around the circle and have each child make one positive comment about the child who just finished making a goal.
13. Go to the next child and proceed with steps 3 through 12.
14. After the last child has finished, post the goals on the bulletin board or some other place where they can be seen by the class.

SOME SUGGESTIONS

Keep the pow-wow comfortable and flexible, but keep the following suggestions in mind.

Keep all students involved with the pow-wow. If a student leaves, the pow-wow stops and everyone waits until he returns. If someone cannot think of a goal, everyone waits until a goal is decided on. After a period of time, the teacher may ask for suggestions from the other children.

Discourage extraneous talking. Only one person at a time is allowed to speak. No side comments or arguments are permitted. Not accepting excuses and requiring specific examples tends to minimize this.

Keep groups heterogeneous. All the problem children should not be placed in one group. Divide up the class so that the students with problems are together with those who have few or no problems. This will give the problem students positive models while providing the nonproblem students with a better understanding of the problems of others.

When a group is formed, it should stay together in the pow-wow for a period of time. It is not a good idea to change groups often since students in one group may not know the goals of those in another group.

Encourage students to set goals that consist of observable behaviors that occur in the class in which the pow-wow is held. As long as the behaviors can be observed by those in the group, behavioral goals can include almost anything. If the group has recess together, for example, then recess behavior can be used. In departmentalized classes, only behaviors that occur in that class are appropriate.

Do not expect instant results. Some children will have a harder time than others with the pow-wow. They will need more time to learn what is expected. Do not give up. It may take five or six sessions before you begin to see results.

Feel free to modify the procedures. Although the pow-wow is a ritual and should be conducted in the same way each time, it is sometimes necessary to modify the process. However, remember the previous suggestion and give modifications a chance before changing again. Reports from teachers who have instituted the pow-wow in their classes indicate that nearly all of them have achieved positive results.

The pow-wow must be done on a regular basis. A pow-wow done once and then not repeated for a few weeks will achieve few, if any, results. The frequency of occurrence is up to the teacher. Many teachers hold the pow-wow on a daily basis, but if this is not possible, it should be held at least once a week.

The teacher should be fully committed to the pow-wow. Unless there is a fire drill, pow-wows should be held as scheduled. If it is at all possible, neither assemblies nor testing should displace the pow-wow. If the students know that the pow-wow is important, then they will treat it as such. If it is treated as something done only as a time filler, the students will pick this up and progress will be slow, if it happens at all.

The teacher should participate in every pow-wow. Although there is much repetition and children can eventually proceed unaided, the teacher must be there in order for the children to have a model to copy. If only nonacceptable models are available, the children may not be able to formulate acceptable goals. The teacher participates fully except that he does not make a goal. It has been found that when teachers make goals, students tend to spend too much time watching the teacher and too little time watching themselves and each other.

If you think the pow-wow method might work for you, try it. It may take a little time to organize and to plan for those students who are not in the pow-wow group, but it can be a useful technique to aid you in changing behaviors in your classroom.

Relationship Between Goal Setting, Pow-Wow, and Behavior Change

• Cognitive control techniques such as goal setting and pow-wow are facilitators of behavior change. They identify problems for children, offer solutions, and indicate commitment to change. But by themselves they will not bring about behavioral change.

It is not sufficient to set goals and suggest alternatives to existing behavior. To increase the probability that behavior will change, we need to teach the child how to perform the new behavior that has been

FIGURE 2
STUDENT POINT SHEET INCLUDING THE WEEKLY GOAL

Behavior and point value

Task	Start promptly (3)	Be neat (3)	Follow directions (3)	Complete work (3)	Attend to task (3)	Sit at desk (3)	Raise hand (2)	Work quietly (5)	Goal	Bonus points	Other points

identified in the pow-wow, and we need to provide the child with reinforcement for the new behavior when it occurs.

As an example, consider the case of a child who, in goal setting, decides that his goal for the week is to fight less. In pow-wow the child decides that he will count to 10 and walk away from situations that previously led to fighting. The teacher may point out models to the child of other children walking away from fights and make sure that the child's behavior is reinforced when he walks away from a fight.

These things are most important. Without the teaching procedures and the reinforcement as supports, cognitive control techniques will be relatively ineffective.

Cognitive control techniques are enhanced by a classroom which operates on a point or token system. The child's goal can be listed as one of the behaviors for which points or tokens may be earned. For each time period in which a child is given points or tokens, extra points or tokens are earned if he met his goal. An alternative is to give bonus points or tokens for achievement of the goal. Figure 2 presents an example of a point sheet with space provided for the goal.

In order for these meetings to achieve their purpose they must be orderly. As a result, ground rules must be set up to include such things as not interrupting, raising hands, and so forth. Rule setting is facilitated with a point or token system. A list of rules can be identified, with point or token values assigned for each behavior on the list. An example of such a list appears in Table 1.

It should be noted that points are not taken away or given for interactions around the content of the meetings. Points relate only to surface behavior that facilitates the orderliness of the meeting.

Hobbs (1966) indicated that disturbed children can and should be taught cognitive control. According to Hobbs:

> The emotionally disturbed child has fewer degrees of freedom in behavior than the normal child, yet he is not without the ability to shape his own behavior by self-administered verbal instruction. He can signal to himself if he can learn what the useful signals are. The teacher-counselor works constantly to help a child learn the right signals.

Hobbs is saying that children can be taught to instruct themselves about appropriate behavior, and that children should be able to administer self instructions whenever they get into situations where problem behaviors occur. The management techniques of goal setting and the pow-wow can aid the teacher in developing successful group processes for behavior change.

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TABLE 1
BEHAVIORS REINFORCED DURING POW-WOW AND GOAL SETTING

Behavior	*Point Value*
Raising hand to speak	20
Not interrupting others	20
Not laughing at others	20
Not whispering while others are talking	20
Keeping to the subject	20

A SEVERELY HEARING IMPAIRED CHILD IN THE MAINSTREAM

Patricia G. Coleman
Kathleen K. Eggleston
Joseph F. Collins
Betty D. Holloway
Sandy K. Reider

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• Cooperation and support are necessary in any educational system. They are especially important when the system includes mainstreaming children with special needs into the regular classroom. Birch (1974) referred to mainstreaming as the practice of placing handicapped pupils in regular classrooms and providing special education services for them in that setting. Additionally, mainstreaming to us means insuring that *all* learners acquire the basic skills necessary to perform successfully in our society.

In order to facilitate the implementation of mainstreaming programs and increase the likelihood of their success, educators must first be willing to "accept handicapped children into their schools and, second, make adequate provision for their education" (Leckie, 1973, p. 23). The idea of accepting children into our schools who have not previously been educated in the mainstream involves changing the attitudes of the school community. Importantly, it also means providing financial support to insure that teachers and school personnel receive the training and resources necessary to provide quality special educational services within the regular classroom.

A MAINSTREAMING SYSTEM BASED ON INDIVIDUAL NEEDS

During the past 4 years, the staff of the Hinesburg Elementary School in Hinesburg, Vermont, has attempted to develop and implement a mainstreaming system which uses a data based model of instruction (McKenzie, Egner, Knight, Perelman, Schneider, & Garvin, 1970). Educational decisions for children are made according to performance based measures, and teaching plans are formulated according to the specific needs of each child. The classrooms are large open space environments containing from 40 to 60 children. Teachers work in teams with the assistance of one paraprofessional. The rooms are arranged into learning centers so that varied instructional activities may be occurring simultaneously.

Each child has an individually prescribed mathematics and reading assignment to complete daily. Instruction is provided in large groups, in small groups, and on an individual basis. All of the teachers at the Hinesburg School have received training in assessing instructional entry levels, developing and sequencing objectives, developing and implementing teaching-learning procedures, and evaluating the effectiveness of each procedure they design. Full time special services personnel include a consulting teacher and a reading specialist who is also a speech and language clinician.

A SPECIALIZED PROGRAM FOR LAURIE

This year when a parent from the community requested that we consider enrolling her 9 year old, hearing impaired daughter in our mainstreaming program, we were all somewhat apprehensive. In spite of the fact that we had been providing quality special education services within the regular classroom to children who might be considered educable mentally retarded, learning disabled, and/or emotionally disturbed, we were unsure if we could provide Laurie with the appropriate instructional program. The special school for hearing impaired children which Laurie had attended for her first 3 years of school was anxious to insure that the skills she had learned would be maintained and that her rate of learning would continue to improve. Since Laurie had a pure tone average of 75 decibels in her right ear and 70 decibels in her left ear, making normal conversation impossible to process without the assistance of hearing aids and special training, we knew that a highly specialized program was needed.

From *TEACHING Exceptional Children*, Fall 1975, pp. 6–9.
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Following a number of meetings between Hinesburg staff members and the special school staff, we decided that Laurie could function in our school in the fourth grade if we could arrange for an individual tutor to assist Laurie in the transition from a small special school program to our large open space environment. Fortunately, the Special Education Division of the Vermont State Department of Education agreed with our plan and provided Laurie with a full time tutor during the school day. We were lucky to find a tutor who was experienced in teaching hearing impaired children.

A COMPREHENSIVE PLAN

Based on standardized and informal entry level measures, we formulated a comprehensive plan to teach oral and written communication that would provide instruction in three basic areas:

1. *Auditory training* to facilitate discrimination between sounds and patterns used in spoken language and to reduce dependency on visual cues.
2. *Speech training* to consist of articulation, intonation, and phrasing practice.
3. *Receptive and expressive language training* to develop syntax and a more sophisticated oral vocabulary.

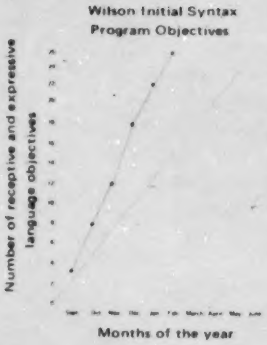
Based on these three major areas, we developed a set of 70 specific enabling objectives to be completed by the end of the school year. Accompanying the objectives were estimates of the amount of time it would take Laurie to learn the skills necessary for mastery. Charts indicating the number of objectives achieved were prepared as a method of communicating Laurie's progress to her parents and to school personnel.

During a daily 1½ hour tutoring session conducted in a quiet alcove adjacent to the classroom, Laurie's tutor taught her the skills specified in the objectives. The instructional materials used in the implementation of these objectives included the Wilson Initial Syntax Program, the Distar Language Program, and numerous teacher made materials.

STAFF AND PEER INTERACTION

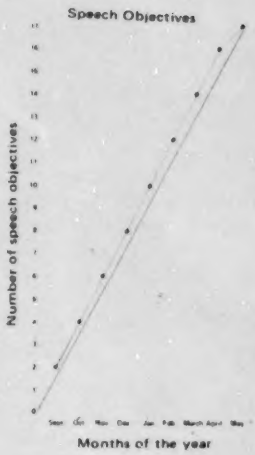
Frequent meetings were scheduled between the tutor and classroom teachers to insure that the skills taught during the tutoring sessions would be maintained in the regular classroom. Monthly meetings were scheduled so that all of the involved staff might review Laurie's progress and suggest alternative teaching-learning procedures if necessary.

In order to maximize Laurie's learning, the teachers attempted to arrange the environment so that Laurie

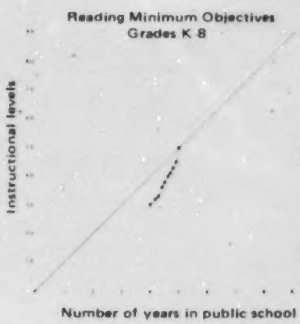


Individualized receptive and expressive language objectives were designed for Laurie, based on a 10 month time period. She met these objectives in 8 months.

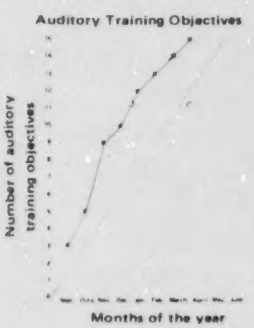
The speech training objectives, which included articulation, intonation, and phrasing practice, were individually designed for Laurie. These objectives also included speech sounds that she omitted in her spoken language.



Laurie's rate of learning in reading was 200% or 20 months of learning in 10 months.



Individualized auditory training objectives were designed for Laurie. These objectives were to be met by June. She met these objectives in 8 months instead of 10 months.



would have many opportunities to interact verbally with both staff and peers.

Laurie's school day was spent much like that of the other students. With the assistance of her tutor, Laurie participated in both large and small group activities. Except for the 90 minutes of instruction with her tutor, Laurie spent the rest of the day with her peers. Along with her classmates, she had an individualized packet of materials in arithmetic and reading which was monitored daily by the teachers. She played on the playground, ate lunch in the cafeteria, and rode home on the school bus with the children from the community.

SUCCESS THROUGH COOPERATION AND SUPPORT

Thus far, Laurie has demonstrated social and academic gains significant enough to warrant continuation of the program. By June, Laurie had mastered all 70 of the objectives specified for oral communication this year. Her reading had increased from 3.0 in September to 5.0 in June. Next year, based on Laurie's rate of progress, we hope to gradually withdraw the tutorial program.

Most importantly, as a result of the cooperation between the State Department of Education, the special school, and our staff, we have provided Laurie with the kind of education that her parents requested. The additional financial and professional support provided to the Hinesburg School has made possible the development and implementation of this successful educational plan.

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Mainstreaming: A Model for Including Elementary Students in the Severely Handicapped Classroom

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STEPHANIE RODGERS
DAVID KRUG

The Autistic Education Program, Portland Public Schools, Oregon, like many programs for the severely handicapped, was not housed within a public school building during its initial development. Because of legislation (Public Law 94-142) assuring handicapped students of access to an education in the least restrictive environment and based on the continued belief that community living is more normalizing (Wolfensberger, 1972), specialized programs are now being placed into regular elementary and secondary schools. In its third year of operation the Autistic Education Program moved into a local elementary school in order to better meet the goals of the new legislation.

Several issues inherent in the special education process come forward in such a move. Normalization, one of the originating concepts behind Public Law 94-142, recognizes the right of each individual within a society to "patterns and conditions of everyday life which are close to the mainstream of society" (Nirje, 1969). For handicapped children, part of this routine includes the right to attend a public school. When, during the education process, a handicapped student progresses so that part of his or her day can be spent alongside nonhandicapped students and engaged in nonspecialized activities, then the true benefit of mainstreaming becomes possible. Peers already functioning within the mainstream become available as models and the advantage of social relationships with these peers becomes possible. Finally, providing instruction that best fits the needs of severely handicapped students often requires an individualized instructional program that frequently includes a one to one student-teacher ratio.

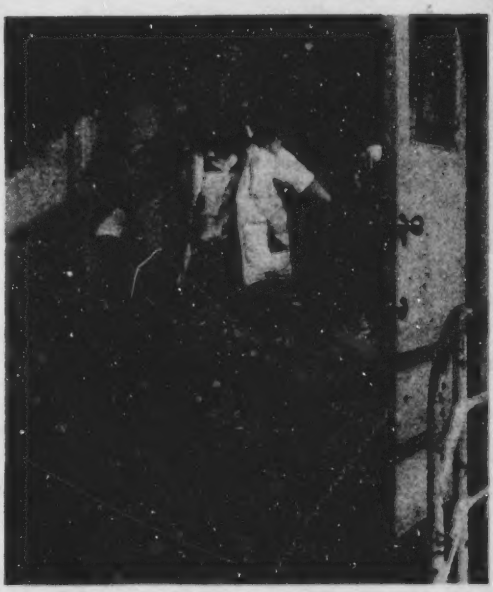
Using the three concepts of normalization, mainstreaming, and individualized one to one instruction, a big brother/big sister program was developed. With present teaching technologies, it did not appear feasible to expect the severely handicapped autistic students to perform "normally," so the nonhandicapped students were brought into the classroom and trained to work and live with the autistic students.

The Autistic Education Program curriculum is based on the work of Ivar Lovaas (1977) whose success with autistic children involved one to one instruction. Each classroom within the program is regularly staffed with one full time teacher and one full time aide. Child trainer positions are filled by graduate students from nearby colleges and universities, so that the program is able to give each child one to one instruction for approximately 70% of his or her school day. The children entering the Autistic Education Program exhibit extreme delays in language development and engage in behaviors which make group instruction extremely difficult to conduct. By initiating individualized educational programs on a one to one basis, these children learn to participate in the instructional process and make optimal educational growth. When language growth has progressed sufficiently to teach group participation behaviors, the children begin to participate in small group activities.

IMPLEMENTATION

Students

The supervisors were drawn from the 133 member nonhandicapped student body of an elementary (K through 6) school and the 12 students from an intermediate level educable mentally retarded class. Three classrooms with a total of 16 autistic students ranging in language age from 2 months to 3 years and in chronological age from 4 years to 15 years made up the severely handicapped, nonlanguage, autistic students.



Karen and Kim, two sixth grade student supervisors, walk their charges to the taxis.

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From *TEACHING Exceptional Children*, Summer 1979, pp. 135-139.

Job Title _____ Grade Preference _____

Days _____ Time _____ Place _____

Who to Contact _____

Description of Duties _____

_____

APPLICANT'S NAME _____

Have You Been A Supervisor Before? _____

When? _____ Where? _____

APPROVAL: _____
(Teacher) (Parent) (Principal)

Figure 1. Job Slip.

Promotion

Upon completion of planning, the Volunteer Supervisor Program was presented to the elementary school principal and the regular classroom teachers. The rationale and procedures involved were discussed and input from all staff members was encouraged.

Following the staff orientation, the program was advertised to the students at the school. Posters about the program were displayed around the school. Presentations were made to each classroom to inform the students about the Volunteer Supervisor Program and what their roles would be if they participated in the program.

Positions

To determine what jobs would be available, the teachers within the Autistic Education Program assessed their needs and determined when and what help they could use. For each job available the teacher completed a job slip (Figure 1) providing a detailed description of the work to be performed. All the job slips were then tacked on a job board and categorized by classroom assignment and time period. Job positions covered a wide range of responsibilities such as a Music Supervisor, Playground Supervisor, Taxi Supervisor, Data Collector, and Child Trainer.

Elementary students were given the opportunity to view the job board. At that time they selected jobs in which they were interested (one job per student). Students removed the selected job slip from the job board, filled in the required information, obtained the requested signatures of approval, and returned the job slip to the contact person.

A final schedule (Figure 2) was developed when jobs were filled. This schedule collectively listed all volunteer supervisors and pertinent information about them and their work assignments.

Developing Interaction Skills: Training

Each volunteer supervisor completed a training period that familiarized him or her with interaction guidelines. Objectives were limited to general interaction situations in which a volunteer supervisor might be involved, as well as how to teach a task. The procedure developed was based on the texts frequently used in training parents and future teachers in the basics of behavior modification (Becker, 1971; Becker, Engelmann, & Thomas, 1975; Patterson & Gullion, 1968).

Over a period of three days the supervisors were involved in training activities. The first of the two phases of the training period involved 15 to 20 minutes of observation by the volunteer supervisors. The supervisors viewed the classrooms in which they would work and observed students, programs, and interactions taking place.

The second phase was covered in two 15 minute training sessions and involved explanation and implementation of selected objectives. Emphasis was limited to three concepts in the classroom training program: praise, clear directions, and helping. Table 1 summarizes this training.

During the first training session the idea of praising students who were doing the right thing was the main lesson. The trainer demonstrated descriptive praise statements such as "good clapping" and "nice walking." The student supervisors then paired off and took turns role playing both the student and the supervisor. The second training session involved a brief review of descriptive praise. Following praise a demonstration of helping or using prompts and a demonstration of clear directions or simple one concept commands was given. Each supervisor again paired off to practice the concepts presented.

Once this general training was completed each student reported to his or her assigned job. The teacher in charge of that job specifically trained the student in the details of his or her particular job. These instructions included such features as the location of materials, hand washing procedures, an introduction to the student they would work with, and a demonstration of the activities to be conducted.

Figure 2. Needs Assessment.

Assignment **Needs Assessment**

Name	Teacher	Room Assignment	Time	Activity	Student	Initialed		
						Teacher OK	Parent OK	Principal OK

Table 1. Summary of Classroom Training Program

Concept	Objective	Activity	Examples
Praise (reinforcement)	Each supervisor will reinforce appropriate behavior with descriptive praise.	Teacher explanation. Teacher model and role play. Supervisor role play in varied situations.	"You (*clap, talk, etc.*) nice." "Wow! Nice (*sitting, walking, etc.*)." "That's a good (*throw, picture, etc.*)."
Clear directions (cues)	Each supervisor will give clear, single command directions.	Teacher explanation. Teacher model and role play. Supervisor role play in varied situations.	"Put the puzzle together." "Hang up your coat." "Stand up." "Come here."
Helping (prompting)	If assistance is needed to elicit a correct response, the supervisor will guide the child as much as necessary through the correct action. Guidance will be mainly in the form of physical manipulation.	Teacher explanation. Teacher model and role play. Supervisor role play in varied situations.	"Clap." (Child does not clap.) Student supervisor guides child's hands through correct action. "Put on your coat." (Child does not put on coat.) Student supervisor guides child through correct action.

Contracts

Supervisors met with the teacher to whom they were assigned and signed contracts when training sessions were completed (Figure 3). The contracts covered the responsibilities of the supervisor and specified that work could be continued only as long as the assigned responsibilities were met. Guidelines were negotiated prior to the signing of the contracts. For example, two excused incidents of tardiness were allowed before dismissal, and no unexcused absences were allowed.

Daily Sequence

The majority of the supervisor jobs followed the same basic sequence. The supervisors went to their work location, signed in or checked in with the work assignment teacher, washed their hands, obtained necessary materials, located the assigned child, performed job duties, replaced the materials, and returned to their regular classroom.

Observation and Assessment

In order to promote efficiency and a better learning environment for the supervisor and the autistic student, frequent observation and feedback from the assigned teacher was required. The feedback slip (Figure 4) proved to be a quick and effective way to provide student supervisors with information about the quality of their work. A 3 to 5 minute assessment procedure was implemented with each supervisor weekly or bi-weekly depending on the responsibilities involved in the job assignment. Written guidelines for use of the slip were provided on the reverse side.

A final assessment (Figure 5) was used to summarize each volunteer supervisor's performance and provide feedback information at the end of each term. This evaluation form also allowed for comments from volunteer supervisors, notes regarding behavior changes seen in supervisors, and questions concerning the evaluation. The final assessment was placed in the supervisor's school file.

EVALUATION

During the 9 months of the academic year 1977-78, three groups, each working 10 weeks, participated in autistic classrooms. By the end of the year, 78 nonhandicapped students from all grades, kindergarten through sixth, were involved in the program for at least 6 weeks. This represented 60% of the entire student body. The program increased in popularity throughout the year, starting with 21% involvement during the fall term and ending with 52% involvement at the end of the spring quarter. All 16 autistic students had at least one personal contact daily with a volunteer supervisor.

Figure 3. Contract.

I WILL:

1. Complete daily work and jobs in my own classroom.

   _____ will decide what work is satisfactory.
   (Teacher)

2. Come to work on time: I will report to _____ (Place)
   _____ at _____.
   (Teacher) (Time)

3. Wash my hands when I arrive at work.

4. Follow directions.
   My duties are:

   _____

   _____

   _____

   _____

As long as I meet these responsibilities, I can continue to work as a student supervisor.

My job begins on _____ (Date)

and ends on _____ (Date).

Student: _____

Classroom: _____

Work Assignment Teacher: _____

Table 2. Percent of Appropriate Supervisor Behavior

Behaviors	Supervisors, % Scores					
	S_1	S_2	S_3	S_4	S_5	S_6
Clear Directions	95	100	85	100	100	80
Helping	90	100	90	100	100	80
Praise	90	90	75	100	95	85

The most visible result of the Volunteer Supervisor Program was demonstrated by the understanding and support of the school's students and teachers. The nonhandicapped students demonstrated understanding and acceptance of the autistic students' behavior. "They can't control themselves very well," said one fifth grade boy, "but we don't laugh at them for it." And a sixth grade teacher who had 14 of his 24 sixth graders involved in the program stated that "kids can be very cruel to handicapped children." But he went on to note that "the Volunteer Supervisor Program side tracks that whole thing," and further commented that some of the slower students who were involved in the program "have gained a sense of self worth from their volunteer work." These same supervisors were frequently the most dependable.

Following training, six of the volunteer supervisors were randomly selected and measured using the same observation tool that was used to train teachers. These students were evaluated for appropriate use of clear directions, helping, and praise. Table 2 shows the teacher effectiveness of each supervisor.

Further evidence of the effectiveness of the supervisors as teachers was shown by the fact that a select group of six supervisors, three each term during winter and spring, were the sole teachers of the "following simple directions" program in the high level class.

Figure 6 shows preacademic skills taught by volunteer supervisors. In this task a supervisor would enter the classroom, set up the materials, locate the assigned autistic student, and both would sit down at the learning station. The supervisor showed the child objects on a table and said "Give me *x*." The child was to select the appropriate item and hand it to the supervisor. Each supervisor collected 20 trials per day per student. The supervisors used pegboards with 10 or 20 holes each in which to place the tokens (pegs), one token for each correct response. The supervisors were able to complete 19 preacademic programs with five different students

Figure 4. Feedback Slip and Guidelines.

Feedback Slip

Vol. Supervisor _____

Activity _____

Time _____ Date _____

Observer _____

(Front)

Guidelines

Sit down beside the volunteer supervisor.

Take either anecdote, verbatim notes, or tally clear directions (cues).

Help (prompts) and praise (reinforcement).

Summarize the data with two positive statements and one suggestion for improvement.

Make a carbon copy for the student to show his or her teacher and parents.

(Back)

Figure 5. Evaluation of Student Supervisors

Name: _____

I. Date: _____

II. Review Students Own Evaluation Form: _____

_____

III. Summary of Feedback Slips: _____

_____

IV. Student Comments: _____

_____

V. Behavior Changes: _____

_____

VI. Questions Relating to Evaluation: _____

_____

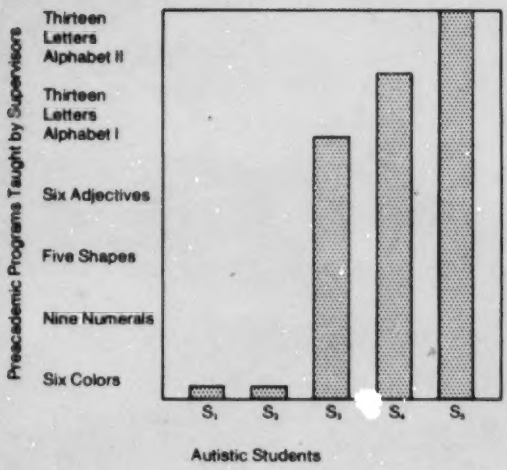

Figure 6. The Bars Indicate Programs Completed to Criterion. These Programs Were Taught by the Supervisors to the Autistic Students.

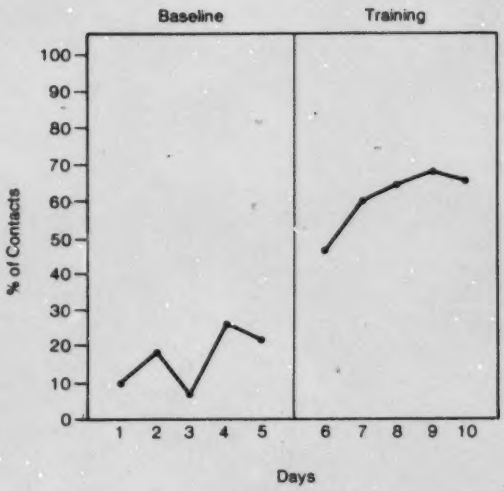

Figure 7. Playground Contacts with Nonhandicapped Individuals During 5 Days of Baseline and 5 Days of Training ($N = 6$).

that would not have been completed without their assistance. These programs included identification of six colors, nine numerals, five shapes, six adjectives, plus the letters of the alphabet. Only one classroom had students ready to work in these preacademic areas.

During playground recess many volunteers requested additional supervisory responsibility, and many first and second graders especially wanted to be included. Six autistic students were each observed on the playground for 20 observation intervals during every lunch recess using a time sampling procedure. During the baseline period of observation the average number of observations in which an autistic student was engaged with another individual was 2.6. After the nonhandicapped students were provided with training and structured activities, the mean number of contacts increased to 10.7 times. As predicted, the increase in contact was significant, $t\ (5) = 3.54$, $p < .01$. The total daily contacts of the autistic students is shown in Figure 7.

CONCLUSION

The program appeared to be beneficial to both the autistic students and the nonhandicapped students involved and seemed to positively affect the daily attitudes of the elementary school community.

The autistic students achieved preacademic skills that may not have been developed without the assistance of one to one instruction from the supervisors. In addition, contact with nonhandicapped students on the playground increased significantly, making more appropriate social models available to the autistic students. A significant point to be made is that the goals of normalization were greatly accelerated by training the educational community.

The nonhandicapped elementary students were able to participate in a career education experience in which they applied for jobs selected from available job listings and signed contracts committing themselves to regular attendance. The training these students received on the job provided them with the interpersonal skills to relate competently with severely handicapped nonlanguage autistic students within the school environment.

The nonhandicapped students developed a sense of responsibility as they left their classrooms each day to go to "work." The teachers and students alike expressed positive attitudes about the experiences they had, as well as an understanding of the autistic students' abilities.

In the future this model could be adapted for use in high schools, community colleges, and on the job work experience programs. The ultimate success of maintaining severely handicapped individuals within the community rests with the community members and their ability to live and work with these individuals.

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V. Perceptions and Attitudes

Teacher Attitudes and the Labeling Process

I. LEON SMITH
SANDRA GREENBERG

Abstract: This study tested three assumptions which appear to underlie the decision making process that permits the systematic labeling of the so called six hour retarded child. Subjects were 36 randomly selected teacher clusters (8 teachers per cluster) in the field-test network of the Curriculum Research and Development Center in Mental Retardation (Yeshiva University). Each cluster was randomly assigned one of nine hypothetical but realistic profiles of students. Teachers were then asked to evaluate the adaptiveness of the child and the appropriateness of a mental retardation label. The results support the notion that teachers' labeling decisions tend to be biased against the lower socioeconomic levels and thus contribute to the inappropriate labeling of these children.

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The term *six hour retarded child* has been introduced to refer to the low socioeconomic class child who is presumably demonstrating adequate adaptive behavior in his community or neighborhood but who is concurrently identified as educable mentally retarded for the purposes of school placement (PCMR, 1969). Three assumptions appear to underlie the decision making process permitting the systematic labeling of the so called six hour retarded child (Hurley, 1971). These assumptions are as follows:

1. There is a bias on the part of the schools regarding socioeconomic class which contributes to the disproportionate number of low socioeconomic class children who are identified as educable mentally retarded.
2. Outside school behaviors may be considered to be differentially adaptive depending on the social class of the child and the community milieu in which the behavior occurs.
3. While the schools may acknowledge social class models of adaptive behavior, these considerations are not incorporated into the labeling process.

The purpose of this study was to test these assumptions empirically. The study was based on attitudinal data collected from significant members of the school environment, namely, the teachers of educable retarded children.

Method

Sample

The subjects consisted of teachers of the educable retarded from 36 randomly selected teacher clusters in the field-test network of the Curriculum Center in Mental Retarda-

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tion at Yeshiva University. Each cluster included approximately 8 teachers located in the same geographic region of the United States. The total sample, then, consisted of 288 teachers from 16 states.

Profiles

Nine hypothetical but realistic profiles or sketches of students were developed and presented to the teachers as part of a larger study of teacher attitudes. Each of the 36 clusters was randomly assigned one of the nine profiles (four clusters per profile). The profiles were randomly assigned by cluster rather than by teacher to minimize communication among teachers about the differences in the profiles.

Each profile contained information concerning the social class of the child, his school performance (including IQ and achievement data), and his behavior in the community or neighborhood outside the school setting.

School performance. In all sketches the school performance information and the IQ and achievement data were identical. (At the time of the study, the data in the academic performance portion of the profiles satisfied the intelligence dimension requirement for a diagnosis of borderline mental retardation, Heber, 1969.) The school performance portion of the profiles was given as follows:

> Johnny's most obvious difficulty in school is in communicating with others. He has trouble in getting his own ideas across and in understanding the ideas of others. In both his written and oral work he makes many grammatical errors. Johnny rarely completes his school assignments without assistance. Although he typically makes attempts to do his homework, his efforts demonstrate a lack in comprehending either the directions or the content of the assignment. This tends to be more true of his verbal than his quantitative work. Johnny also does better in rote learning than in interpreting material of a more complex nature. Johnny is not a discipline problem, nor does he have any difficulty in following rules and regulations established by the school. However, when he makes mistakes, he does tend to become frustrated and has been known to rip up his papers in disgust. In school, he has been tested three times over a period of six years. On standard intelligence tests he obtained scores between 68 and 81, and on achievement tests typically performed at a level two to four grades below national norms.

Social class. Three levels of social class were used: upper middle class, lower middle class, and lower class. Social class was operationally defined with reference to the occupation of the head of the household, the type of residence, and parental involvement in school activities. The following is a description of the social class levels employed in the sketches:

- Upper middle class:

  > Johnny Jones lives with his parents in an eight-room home, purchased directly after his father was promoted to a middle management position in a rather large company. Johnny's mother, a housewife, frequently attends Parent-Teacher conferences at the school in order to discuss his problems with his teachers.

- Lower middle class:

  > Johnny Jones lives with his mother, father, and two younger brothers in a small, four-room house close to the factory where Mr. Jones is employed as a semi-skilled worker. Mrs. Jones irregularly attends Parent-Teacher conferences to discuss Johnny's problems with his teachers.

- Lower class:

  > Johnny Jones lives with his mother and three younger brothers in a one-bedroom apartment in an older multiple-family dwelling. Since Johnny's mother is unskilled and unemployed, support for the family is provided by the welfare program. Due to the presence of the young children at home and the lack of child-care facilities, the mother is unable to respond to requests from teachers inviting her to attend the Parent-Teacher conferences in order to discuss Johnny's problems.

Outside school behavior. The three types of outside school behavior used in the profiles were adapted from distinctions and definitions suggested by Farber (1968) and Freidson (1962). The types consisted of competent nondeviant behavior, competent deviant behavior, and incompetent nondeviant behavior. These dimensions were operationally defined with respect to peer group associations, leadership, the use of free time, and behavioral deviancy or nondeviancy based on standards typically ac-

cepted by a dominant, middle class society. The three types of outside school behavior were presented in the following ways:

- Competent nondeviant behavior:

  Outside of school, Johnny has become an important member of a closely knit group of boys who are active in an ecology club formed at a local youth center. The group is organized to clean debris from streets and vacant lots in the neighborhood [or "community," depending on the social class intended]. Frequently, they find bottles and cans that are sold for recycling. They also systematically search for other items that can be fixed up and sold at the thrift shop they have set up at the club. Because of the success of the group, the members usually stick together for social and play activities.

- Competent deviant behavior:

  Outside of school, Johnny has become an important member of a closely knit group of boys who work in teams of two or three shoplifting small items from local stores. Sometimes the group breaks into houses and apartments in the neighborhood [or "homes in the community" or "tenements and buildings in the neighborhood," depending on the social class intended] to steal goods that one of the members then sells in other communities. The group has developed a procedure that makes it almost impossible to trace the goods that are taken. Because of the success of the group, the members usually stick together for social and play activities.

- Incompetent nondeviant behavior:

  Outside of school, Johnny likes to play baseball, football, or any other sport if he can find someone to play with. Although he is always there when teams are chosen, he is usually selected last or not at all. When this happens, he will stay around to watch the game. Sometimes Johnny will ride his bicycle to the shopping area and look in store windows or go to the park and look through the comic books he always carries with him. Occasionally, it will take him a long time to get home because he loses his way.

Construction of the profiles. Each sketch was constructed by employing one of the three social class levels to introduce the child, followed by the school performance and IQ and achievement data, and finally, one of the three types of outside behavior. Thus, nine different profiles were generated. Approximately 10 members of the staff of

TABLE 1

Teacher Judgments on Appropriateness of the Mental Retardation Label and on Adaptive/Nonadaptive Behavior for the Nine Profiles

Student profiles	*Appropriateness of mental retardation label*			*Adaptive/nonadaptive behavior (number of teachers placing profile in each category)*	
	Mean[a]	*SD*	*Cell size*	*Adaptive*	*Nonadaptive*
Upper middle class					
Competent nondeviant	2.5	1.3	26	27	1
Competent deviant	3.0	1.1	26	17	9
Incompetent nondeviant	2.3	1.6	22	16	3
Lower middle class					
Competent nondeviant	2.8	1.5	14	13	1
Competent deviant	2.8	1.6	19	15	4
Incompetent nondeviant	2.6	1.3	18	8	8
Lower class					
Competent nondeviant	2.3	1.2	31	29	1
Competent deviant	2.2	1.3	17	17	1
Incompetent nondeviant	1.8	0.9	20	13	7

Note. The total sample size for both questions is not the same because some teachers did not return a completed questionnaire.

[a]A mean value toward the lower end of the scale (1) indicates the appropriateness of the mental retardation label, while a mean value toward the upper end of the scale (5) indicates the inappropriateness of the label.

the Curriculum Research and Development Center in Mental Retardation were employed in confirming that the profiles realistically represented individuals attending the public schools.

While the profiles contained specific information, they were also intended to be open to interpretation so as to permit attitudes to influence the teachers' judgments about the child (Asch, 1952; Guskin, 1962). For this reason, age-specific information was not included but could be estimated from the data about the child and the number of times he was tested over a period of years. The length of the nine profiles did not vary by more than 30 words, and minimum changes were made to achieve the desired differences.

All sketches represented male students. This decision was made for two reasons: First, the sex ratio of special classes typically shows a preponderance of males; and second, the teacher pool available for the study was not considered large enough to obtain a reliable number of responses to justify the use of additional female profiles.

Questionnaire

Questions were developed to elicit decisions and/or opinions in most of the major areas that concern the education of educable retarded children. These areas included the adaptiveness of behaviors, identification (labeling), class placement, curriculum considerations, and the expected life chances of the child. In addition, a number of questions dealt with the meaning of various labels (mental retardation, learning disability, brain damage, emotional disturbance, culturally disadvantaged), the extent to which they are considered damaging to the child, and the degree to which the behaviors associated with the labels are capable of being modified. Teachers were also asked to estimate the number and proportion of students in their class who appeared to be functioning like the child described in the profile they received.

In order to illustrate the assumptions hypothesized to underlie the identification of the six hour retarded child, this article presents data on the first two questions only, namely, teacher decisions concerning the adaptiveness of the child and the appropriateness of the mental retardation label. The first question was assessed categorically (adaptive/nonadaptive), while the second was scored on a continuum from 1 to 5, with the lower end of the scale indicating the appropriateness of the retardation label and the upper end of the scale indicating the inappropriateness of the mental retardation label. The teacher responses to these two questions served as the dependent variables in the study.

Results

Of the 288 teachers who received profiles and questionnaires, 193 (67%) returned the questionnaires. Table 1 contains the descriptive statistics for teacher judgments on label appropriateness and adaptiveness of behavior for each profile. The statistical analysis of data concerning each of the assumptions stated earlier and the results of this analysis follow.

Assumption 1

The bias against the lower socioeconomic classes was tested by a 3 × 3 (social class × outside school behavior) nonorthogonal analysis of trend on the teacher responses concerning the appropriateness of the mental retardation label. This analysis identified a significant linear component for social class, $F\ (1,184) = 4.8$, $p < .05$; the lower the class of the child in the profile, the more appropriate the mental retardation label was judged.

Assumption 2

Chi square analyses were conducted to determine whether social class and outside school behaviors were related to the teachers' judgments concerning adaptiveness (n = 190). All analyses tested the hypothesis that the response proportions are not significantly different for the three types of outside school behavior at each socioeconomic level. In the upper middle class profiles, the competent nondeviant and to some extent the incompetent nondeviant behavior pattern are considered most adaptive, $x^2(2) = 7.85$, $p < .05$. In the lower middle class profiles, the competent nondeviant along with the competent deviant behavior pattern are considered adaptive, $x^2(2) = 8.75$, $p < .05$. It is in the lower class profiles, however, where there is clear evidence that these latter two incompatibel patterns are considered equally adaptive, $x^2(2) = 9.43$, $p < .05$. The results, then,

support the assumption that teachers, as representatives of the schools, acknowledge social class models of adaptive behavior.

Assumption 3

In order to determine whether decisions concerning adaptiveness were related to the labeling process, point biserial correlations were computed between the teachers' judgments concerning adaptiveness of the child and the appropriateness of the mental retardation label. This was computed for each of the nine profiles as well as those for each social class collapsed across all outside of school behavior and each outside school behavior collapsed across all social classes. None of these relationships were significant, indicating that teacher decisions concerning adaptiveness are quite independent of their judgments concerning the appropriateness of the mental retardation label. The range of these point biserial correlations was .01 to .20.

Discussion

The results support the three assumptions that lead to the identification of the six hour retarded child. Teachers appear to subscribe to different views of adaptive behavior depending on the social class of the child. For the upper middle class profiles, a deviancy/nondeviancy model of adaptiveness best fits the data. Under this model, outside school behavior that is likely to threaten the established social structure (competent deviant) is considered nonadaptive, while those patterns that do not pose a threat are considered adaptive (competent nondeviant and incompetent nondeviant). Regarding the lower two classes, a competency/incompetency model appears more appropriate. Given this view, outside school behaviors that represent competency (competent deviant and competent nondeviant) are considered adaptive, while incompetent behavior (incompetent nondeviant) is judged nonadaptive.

Thus, adaptiveness in the upper middle class profiles appears to be a function of the degree to which the outside school behaviors are consistent with accepted standards of conduct, while in the lower class profiles, adaptiveness is more highly related to the acquisition and demonstration of skill. However, this is not intended to imply that these judgments would be consistent with those of actual members of each of the social classes.

Regardless of the parameters affecting teachers' judgments concerning adaptive behavior, the resultant decision is not incorporated into the labeling process. Instead, the decision concerning the appropriateness of the mental retardation label is a function of the social class of the profile—the lower the class, the more appropriate the mental retardation label is judged by the teachers.

In substance, then, teacher decisions on this issue are at considerable variance with both the old (Heber, 1961) and new (Grossman, 1973) positions of the American Association on Mental Deficiency (AAMD). Both these positions require consideration of adaptive behavior in the labeling process. (The current definition of mental retardation differs primarily from the past definition in that the level of impairment in intellectual functioning needed to satisfy the requirement on that dimension has been lowered. Thus, by specifying a more extreme impairment in the academic portion of the profiles, the present study could be replicated within the new AAMD framework.)

Also, it cannot be argued that the issues raised around the AAMD definition are of little relevance to teachers because they view retardation primarily in terms of school problems and related academic issues. If this were the case, no social class bias in rated level of retardation should have been detected since all profiles contained identical school performance information and IQ and achievement data.

The largest discrepancy between the ratings of adaptiveness and the appropriateness of the mental retardation label occurs in the lower two social classes when the outside school behavior is most discontinuous (competent deviant) with the values typically reinforced by the schools. For this outside school behavior pattern, the polarity suggests that the lower the social class, the more adaptive, and, at the same time, the more appropriate the mental retardation label is judged by the teachers. This discrepancy, then, confirms the selective identification and labeling of a group of children who are considered adaptive outside school and retarded in school.

Thus, it would appear that the six hour retarded child exists only to the degree that the decisions of teachers, as representatives of the schools, are in line with the three assumptions given earlier. The teacher attitudes inherent in these assumptions, then, lead to the creation of the six hour retarded child and are the means through which the school produces a set of discontinuous experiences for this type of child. This also implies that under a different set of assumptions it is likely that such a child would not be labeled as retarded.

Under the present conditions one wonders whether the labeling of these types of children is more reflective of the failure of the child to respond to the school or the failure of the school to adapt to the child. In this condition, the introduction of the label, six hour retarded child, may be unfortunate because it appears to reinforce that which its creation was intended to prevent. That is, it emphasizes the 6 hours of retarded behavior as opposed to the 18 hours of presumably nonretarded behavior. In this manner, then, the label appears to focus on the weaknesses in behavior rather than drawing on the strengths in behavior. Indeed, it seems to justify the inappropriate labeling of children which has as its first effect the increase of behavioral heterogeneity of children in special classes.

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"I Wouldn't Have Seen It If I Hadn't Believed It"

GLEN G. FOSTER
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Abstract: 38 students enrolled in an introductory special education class in education of the emotionally disturbed were randomly assigned to two treatment conditions, a normal (control) condition and low expectancy condition. These teacher trainees participated in a two phase study. During phase 1 the teachers were asked to rate a hypothetical normal child (control group) or a hypothetical emotionally disturbed child (low expectancy group) on two dependent measures developed for this research. During phase 2, both groups independently viewed a videotape of the same normal child. The control group was told the child was normal; the low expectancy group was told the child was emotionally disturbed. Both groups completed the same dependent measures following observation of the child. Differences between the groups in both phases indicate that teacher trainees hold negative stereotypical expectations of children labeled emotionally disturbed. Observations of normal behavior alter these expectations to some extent, but the negative halo of the label still results in more negative perceptions of behavior than when the child is labeled normal.

Special education in the public schools has developed around an evolving series of disability categories. As a result, a child must be labeled to become eligible for special education services (Dunn, 1968). The process of labeling a child as "special" in some way so that special education services can be provided has come under considerable attack (Blatt, 1972; Clark, 1969; Dunn, 1968; Edgerton, 1967; Gallagher, 1972; Hammons, 1972; Jones, 1972; Lilly, 1971; Meyen, 1971; Reynolds & Balow, 1972). As Gallagher (1972) has stated,

> The problem with labeling a child educably mentally retarded, for example, and placing him in a special program is a current suspicion, backed by respectable research, that such a placement does *not* lead to effective treatment. (p. 529)

Some of the strongest arguments against the process have been based on the viewpoint that labeling produces a condition of self fulfilling prophecy and has an adverse effect on teacher expectations of pupil performance (Dunn, 1968; Rosenthal & Fode, 1963). Dunn (1968), in discussing the relationship between the labeling process and the self fulfilling prophecy, stated, "We must expect that labeling a child 'handicapped' reduces the teacher's expectancy for him to succeed" (p. 9). Simply put, the self fulfilling prophecy can be described as "how one person's expectation for another person's behavior can

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quite unwittingly become a more accurate prediction simply for its having been made" (Rosenthal & Jacobson, 1968, p. vii).

Theoretically, teacher expectancy concerning a given child is created through test scores, labeling, and so forth. This expectancy is then transferred to the pupil who, in turn, behaves in ways consistent with the expectancy (Schain, 1972). Regarding the special education labeling process, labeling a child as handicapped would theoretically lower teacher expectancy. This lowered expectancy could be communicated to the child. Even without the communication of the lowered expectancy, a deleterious effect of labeling could be expected through misinterpretations of the child's behavior due to a halo effect. This phenomenon may in turn affect the child in subtle or obvious ways and thus induce behavior change.

Barber, Calverley, Forgione, McPeake, Chaves, and Bowen (1969) have delineated seven steps necessary for the self fulfilling prophecy to operate, one of which is retention of the expectancy by the teacher. Salvia, Clark, and Ysseldyke (1973) investigated whether or not teacher trainees would retain stereotypes of exceptionality when faced with a normal child who was improperly labeled. Using a laboratory technique, the authors demonstrated that subjects did hold stereotyped expectancies of children labeled gifted and retarded and that these expectancies were retained in the face of conflicting evidence. It was further noted that a complex series of parameters must influence the bias effect since results were not consistent across labeling conditions, children labeled, or type of teacher training.

Jones (1970) examined the expectancies generated in a group of student teachers by labeling a child as culturally deprived. Significant differences were noted between the experimental and control groups with the "deprived" condition yielding consistently lower morale scores. Cahen (1966) reported that biasing information altered test scoring tendencies of elementary school teacher trainees in a manner consistent with the direction of the bias. It was demonstrated that the amount and type of information provided influenced the bias effect.

The purpose of this study was to determine (a) the extent to which teacher trainees have negative stereotyped expectations regarding emotionally disturbed children and (b) the extent to which these attitudes are maintained in the face of conflicting evidence. The two hypotheses investigated were as follows:

1. Teacher trainees will rate a hypothetical emotionally disturbed child more negatively than a hypothetical normal child.
2. When presented with a videotaped presentation of a normal child, teacher trainees will rate the child more negatively when they are told he is emotionally disturbed than when they are told he is normal.

Method

Subjects

Subjects were 38 graduate and undergraduate students enrolled in an introductory course in education of emotionally disturbed children. Data were collected in the 7th week of the scheduled 10 week course. Six of the subjects were male, and all had been exposed to the work of Rosenthal and Jacobson (1968), as well as to other expectancy and bias studies.

TABLE 1

Means and Standard Deviations for Normal and Low Expectancy Treatment Groups from Phases 1 and 2

	Normal expectancy condition (control group)		*Low expectancy condition (experimental group)*	
Study phases	*Mean*	*SD*	*Mean*	*SD*
Personality questionnaire				
Phase 1	12.9	7.4	28.7	5.1
Phase 2	9.7	5.1	19.3	10.0
Behavior checklist				
Phase 1	43.2	11.3	70.9	10.5
Phase 2	45.4	9.3	59.8	11.6

Procedure

The 38 student subjects were randomly assigned to one of two treatment groups, designated as normal expectancy condition (control group) and low expectancy condition (experimental group). The combined groups were told that they were participating in a reliability and validity study of a newly developed teacher referral instrument, after which the groups were segregated. The study was divided into two phases, phase 1 being an expectancy condition and phase 2 a halo effect condition.

During phase 1 (expectancy phase), subjects were asked to complete one copy of the pseudo referral device. The normal expectancy group was told to complete the form as they believed it would look for a normal 4th grade boy; the low expectancy group was told to complete the form as if for an emotionally disturbed 4th grade boy.

After these forms were collected phase 2 began. During phase 2, the segregated groups were exposed to a videotaped presentation of a normal 4th grade male child engaging in various activities. During this phase, the normal expectancy group was told that the taped subject had been evaluated by a clinical team in various areas and was considered normal; the low expectancy group was told the child had been labeled emotionally disturbed through this evaluation. The treatment groups were exposed to identical taped presentations. Following the presentation, each group was asked to complete a second referral form based on the behaviors they had observed on the tape, as if referring the taped child for an evaluation.

Materials

Videotape. A 12 minute color videotape of a beginning 4th grade child was developed for use in this research. The child was chosen on the basis of normalcy in the areas of intelligence, academic achievement, and appearance. Normalcy of appearance was determined during a previous study employing a *Q* sort technique. The child's cumulative folder was examined and found to contain no records of unusual or deviant behavior.

The tape presented this child engaging in four different activities: (a) taking the Wide Range Achievement Test (WRAT) reading recognition subtest, (b) taking the Peabody Individual Achievement Test general information subtest, (c) performing various perceptual motor tasks, and (d) engaging in a brief free play period. The child recognized words on the WRAT subtest and responded to questions on the general information subtest at grade level. Although the teacher trainees who viewed the tape were not told that the child performed at grade level, they were supplied with a list of the words the child was required to read.

Dependent Measures. Two dependent measures were developed for use in this study. These were combined and presented as a research form of a referral instrument. Part 1 consisted of 35 personality questionnaire items chosen at random from a commercially available measure of personality. Subjects were told to complete each item as they thought the referred child would if given the opportunity. The number of items completed in a negative direction constituted the score for this measure, with a high score corresponding to generally negative ratings.

Part 2 of the referral instrument consisted of a 23 item checklist on which subjects could rate the referred child in various areas including academio skills, perceptual motor development, activity level, and personal-social adjustment. Ratings were made along

TABLE 2

Results of Two Way Repeated Measures Analysis of Variance for Personality Questionnaire

Variables	*Sum of squares*	*Mean square*	*df*	*F*
Expectancy condition	2825.00	2825.00	1	47.05*
Error	2041.36	60.04	34	
Phase	741.12	741.02	1	16.31*
Expectancy × phase	183.68	183.68	1	4.04
Error	1544.69	45.43	34	

*$p < .01$

TABLE 3

Results of Two Way Repeated Measures Analysis of Variance for Behavior Rating Scale

Source of variation	*Sum of squares*	*Mean square*	*df*	*F*
Between groups				
Expectancy condition	8602.34	8602.34	1	62.29**
Error	4695	138.08	34	
Within subjects				
Phase	253.12	253.12	1	4.15*
Expectancy × phase	642.01	642.01	1	10.54**
Error	2069.36	60.86	34	

*$p < .05$
**$p < .01$

a 104 mm continuum divided into 5 levels ranging from *superior* to *far below average*. Distance along this line constituted the score for each item, with the average distance for all items constituting the total score for the measure. Again, high scores were indicative of negative ratings. A split-half reliability coefficient was computed for this instrument using phase 1 data for the normal expectancy condition. Corrected for length of test, this coefficient was computed to be .917.

Results

Means and standard deviations for scores of the two treatment groups during the two phases of the study are presented in Table 1. Two way analyses of variance were computed separately for the results of the personality questionnaire and the behavior rating scale. The results of these analyses are presented in Tables 2 and 3.

Simple mean comparisons were computed using *t* tests to further examine the observed interaction and the main effects. Results of these comparisons are summarized in Table 4.

During the expectancy phase (phase 1), subjects rated a hypothetical emotionally disturbed child more negatively than they rated a hypothetical normal child on both dependent measures. These data support the first hypothesis. Similar results were obtained during phase 2 (halo effect condition), with subjects rating the taped child more positively when he was labeled normal than when he was labeled emotionally disturbed. These data support the second hypothesis.

Low expectancy group subjects rated the taped presentation of a child more positively than they rated the hypothetical child. No significant differences were noted, however, between phase 1 and phase 2 ratings compiled from the normal expectancy group.

Discussion and Implications

The data obtained in this study strongly suggest that teacher trainees have preconceived stereotypical expectancies about the

TABLE 4

Results of Independent *t* Tests Between Groups and Conditions

Groups compared	*Phase*	*Dependent measure*	*t*
Normal and low expectancy	1	Questionnaire	7.68**
		Checklist	7.8**
	2	Questionnaire	3.64*
		Checklist	4.19**
Normal expectancy	1 & 2	Questionnaire	1.51
		Checklist	-.65
Low expectancy	1 & 2	Questionnaire	3.74*
		Checklist	3.18*

*$p < .005$
**$p < .001$

behavior of emotionally disturbed children (phase 1). Labeling a child as emotionally disturbed calls forth these biases, which are held even in the face of conflicting behavior (phase 2).

The fact that low expectancy subjects did rate the taped child less negatively than a hypothetical emotionally disturbed child suggests that the subjects did not completely overlook the evidence of normalcy presented on tape. However, the significant phase 2 differences between groups suggests that this objectivity was diminished by the strength of the bias generated by the label. The subjects were not unfamiliar with this type of research, and yet group differences were highly significant, demonstrating the strength of the bias phenomenon.

While the generalizability of such a study is limited because of the laboratory nature of the procedure, the situation is analogous to that faced by a classroom teacher. A child is presented to the teacher bearing a deviancy label, and the teacher in turn approaches the child with a mental set based on preconceived expectancies. If the child shows signs of normalcy, these may, to some extent, alter the teacher's preconceived expectancies. This research suggests though that these normal behaviors can be misinterpreted as typical of negatively categorized children. Logic dictates that an experimenter bias effect may then come into play, with the teacher behaving toward the child in ways consistent with the bias. If the child responds to the bias, he may in turn reinforce the teacher's expectancies. A series of positive feedback loops is established and an iatrogenic disease is in the making.

The results of this study should lead special educators involved in the education of teachers to reexamine some of the precepts upon which such education is based. Subjects in this study were not naive concerning the phenomenon of expectancy. Yet, when they were presented with the results of the study, they were stunned to see that they were susceptible to its influence. Mere exposure to the expectancy bias effect through lectures, discussions, and assigned readings was insufficient to convince the teacher trainees of its potency and obviously did not change their own susceptibility to the effect. The format used in this study could be a useful way to demonstrate the effect of bias to students.

The act of labeling another person is a social behavior which is learned and reinforced. The research reported here demonstrates that a label of emotionally disturbed carries with it certain evaluative components. To the extent that these are negative or detrimental and are maintained in the face of conflicting behavior, objective evaluation and treatment of the labeled child becomes problematic. The results of this study offer additional fuel to the growing fire being built around the existing system of categorization commonly practiced in most school systems.

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Integrated Settings at the Early Childhood Level: The Role of Nonretarded Peers

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Abstract: Recent trends toward early intervention and mainstreaming have resulted in a growing number of preschool programs that integrate retarded and nonretarded children. These programs are generally based on the assumption that nonhandicapped peers function as behavioral models and/or reinforcing agents for handicapped youngsters within the context of positive social interaction. However, a review of relevant empirical literature indicates that such benefits do not necessarily result from integrated programing. This article discusses the implications of recent studies that have investigated procedures for structuring peer imitation and peer reinforcement at the preschool age level. Specific suggestions are offered for maximizing the potential benefits of integrated early childhood programs. Additionally, recommendations are made concerning research needs in this area.

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The emergence of mandatory education legislation has recently brought large numbers of previously unserved moderately and severely retarded children into the responsibility domain of school systems across the United States. One effect of this influx has been increased attention by special educators to the development of effective early intervention programs for this student population (Jordan & Bailey, 1973). As a consideration in developing these programs, some educators (Wolfensberger, 1972) and psychologists (Bricker & Bricker, 1972) have proposed that the practice of integrating retarded preschoolers with nonhandicapped peers may stimulate the former's development. As a consequence, numerous preschool programs have been established over the course of the past decade with integrated groups of retarded and nonretarded children (Wynne, Ulfelder, & Dakof, 1975).

It should be noted that the integrated or nonintegrated nature of a preschool program for handicapped children represents only one of a myriad of variables that may have an impact on program efficacy. Nevertheless, some commentators have pointed to specific benefits that are assumed to result from integrated preschool programing (Wynne et al., 1975). Regarding the interaction of retarded and nonretarded classmates, it has been contended that the nonretarded operate as behavioral models to enhance retarded children's development (Bricker & Bricker, 1972). Wolfensberger (1972) has stated the position as follows:

> At this [preschool] age level, normal peers seem to constitute non-threatening models from which the handicapped (especially the retarded) can

From Exceptional Children, February 1977, pp. 262-266. Copyright © 1977 The Council for Exceptional Children

learn much more than they typically do from their impaired peers. (p. 51)

Furthermore, it has been suggested that nonretarded children function as reinforcing agents to their retarded classmates within the context of child-child interaction (Wynne et al., 1975). This article reviews literature regarding these assumed benefits and suggests teaching procedures that are designed to maximize the desirable outcomes purported to accrue from integrated programing.

Efficacy of Integrated Programing

The contemporary trend toward integrating retarded and nonretarded preschool children has been subjected to little direct empirical scrutiny (Wynne et al., 1975). However, some relevant research has been reported. Devoney, Guralnick, and Rubin (1974) examined the extent to which handicapped preschool children imitated nonhandicapped peer models in social play situations. These investigators found that handicapped children did not imitate nonhandicapped classmates until their teachers systematically structured play activities designed to promote imitation by the handicapped group. Even such structured activities, moreover, were only minimally effective for the nonverbal handicapped children in the investigation.

Ray (1974) analyzed interaction patterns involving retarded and nonretarded children in a preschool program with a 1:1 integration ratio. He reported that nonretarded children interacted significantly more with both individuals and groups than did retarded subjects. More importantly, perhaps, Ray found that nonretarded children interacted primarily with their nonretarded peers and only minimally with their retarded classmates. Additionally, studies conducted in settings with integrated preschool groups of behavior disordered and normal children (Allen, Benning, & Drummond, 1972) and disadvantaged and nondisadvantaged children (Feitelson, Weintraub, & Michaeli, 1972; Karnes, Teska, & Hodgins, 1970) revealed little spontaneous cross group interaction.

The findings regarding the integration of handicapped and nonhandicapped children (Allen et al., 1972; Devoney et al., 1974; Ray, 1974) and disadvantaged and nondisadvantaged children (Feitelson et al., 1972; Karnes et al., 1970) are essentially consistent with the results of several sociometric investigations on the peer acceptance of older retarded children in integrated settings. It has been shown that retarded children in integrated programs were less accepted and more rejected by their nonretarded classmates than were nonretarded children (Goodman, Gottlieb, & Harrison, 1972; Iano, Ayer, Heller, McGettigan, & Walker, 1974; Kolstoe, 1972). This finding held even for mildly retarded children who had never been labeled or segregated (Iano et al., 1974). In summary, studies with handicapped and disadvantaged preschool children and with elementary age retarded youngsters have indicated that integrated settings do not necessarily result in increased cross group imitation and social interaction between handicapped and nonhandicapped children. Apparently, teaching procedures designed to foster these effects are needed if retarded and other handicapped children are to benefit optimally from integrated preschool programing.

Programing Suggestions for Integrated Settings

Claims for the efficacy of early integration may be based on the assumptions that nonretarded classmates function as effective behavioral models for retarded children (Altman & Talkington, 1971; Bricker & Bricker, 1972) and that interaction with nonretarded children reinforces retarded children's prosocial behaviors, as well as their skills in other areas of development. Consistent with this position, the child development literature reveals that young nonretarded children imitate and interact with one another in a fashion which may contribute to adaptive behavioral development (Apolloni & Cooke, 1975).

Peer Model Approach

While peer imitation is probably the most commonly stated justification for early integration, it is questionable whether preschool age retarded children possess sufficient discrimination skills to imitate the behavior of peers without specific training. Based on previous research, two tactics would seem appropriate to teach such imitation skills. First, the levels at which some retarded children imitate their nonretarded peers might be increased by structuring situations wherein retarded children observe peer models and receive positive reinforcement for performing desired behaviors. This tactic has been shown to be successful for increasing the

peer imitation of nonretarded nursery school children (Bandura, Ross, & Ross, 1963; Geshuri, 1972), although conflicting results have also been reported (Elliott & Vasta, 1970).

Generalized Imitation Approach

Another approach for increasing the rates at which retarded children imitate their nonretarded peers might be to directly program for generalized imitation. In a recent study, Apolloni, Cooke, and Cooke (1975) trained three retarded toddlers in structured training sessions to imitate the motor responses of a nonretarded classmate. The results indicated that the retarded children learned to imitate the nonretarded child and that their imitative behavior generalized across stimuli situations and to responses never directly trained. Other studies currently under way by the same investigators are focused on determining the efficacy of peer imitation training as applied in unstructured, free play situations and with verbal target behaviors.

Reinforcing Agent Approach

A second major underlying rationale supporting the value of integrated preschool programs is that nonretarded children function as reinforcing agents for their retarded classmates. While this specific notion has never been empirically demonstrated, related investigations in which nonhandicapped children served as reinforcing agents for nonhandicapped preschool children have been reported. In these studies preschool children were successfully trained to modify the social behavior of their peers by dispensing contingent social reinforcement (Wahler, 1967) and social reinforcement paired with edible rewards (Long & Madsen, 1975).

Efforts to train nonretarded children to serve as reinforcing agents to their retarded peers would involve teaching the former group to consistently engage in two activities. First, nonretarded children would need to learn to discriminate those aspects of retarded children's repertoires that merit reinforcement. Second, it would be necessary for nonretarded children to learn to dispense social and material reinforcers on a contingent basis. One method for accomplishing this training has been demonstrated by Hamblin and Hamblin (1972). These investigators found that preschool children could learn to directly model an adult teacher's technique of social reinforcement. Once the preschoolers incorporated contingent reinforcement into their teaching repertoires, they became even more effective than adult teachers in applying reinforcement to increase levels of reading ability in other children. It is interesting to note that the superiority of peer reinforcement was particularly evident in teaching lower IQ children.

Interpersonal Relationship Approach

In planning integrated programs, special educators should not overlook the interpersonal relationships between retarded and nonretarded children. Due to the reciprocal nature of social reinforcement (Patterson & Reid, 1969; Strain & Timm, 1974), it would seem probable that introducing procedures to increase the peer reinforcement value of retarded children should lead to increased levels of positive social interaction between these children and their nonhandicapped peers. One way to develop the reinforcement value of retarded children would be to associate them with rewards commonly found in preschool settings (e.g., juice and cookies or favored materials). This might also be accomplished through structuring cooperative response patterns (Altman, 1971) between nonretarded and retarded children or through establishing group contingencies to foster reciprocal social interaction (Straughan, Potter, & Hamilton, 1965; Walker & Hops, 1973). Another technique would be to directly train retarded children to emit social amenities which would serve to facilitate their positive social interaction with peers. Cooke and Apolloni (1976) demonstrated that when primary age handicapped children were taught to emit positive social-emotional responses (i.e., smiling, positive physical contacting, sharing, and verbal complimenting), the behaviors maintained across time and generalized to nontraining situations as well as to untrained peers.

Implications for Research

Systematic Planning and Programing

Perhaps the most salient implication to be drawn from the preceding discussion is that systematic planning and programing are required to insure the desirable outcomes that have been assumed to result from the integration of retarded and nonretarded pre-

school children. Seemingly, the most significant questions currently demanding empirical response relate to the identification of (a) an optimal set of environmental conditions which would promote interaction between retarded and nonretarded children and (b) the appropriate educational procedures for establishing nonretarded children as behavior models and as reinforcing agents for their retarded classmates. Among the variables which could be experimentally manipulated to effect such outcomes are (a) the ratio of retarded to nonretarded children; (b) the ages, language skills, and other competencies of the retarded and nonretarded participants; (c) the nature of the teacher's performance; and (d) the materials and activities within particular settings.

Generalized Effects

Another question that merits investigation relates to the generalized effects on both retarded and nonretarded children of being placed in integrated programs. That is, once structured settings have been established wherein retarded children imitate and interact with nonretarded peers, it is critical to determine whether these behaviors occur in other settings, with new children, and in the context of new activities. In all likelihood, the attainment of such generalized outcomes will require specific programing. One way to program such generalization would be to overcondition the children's behavior in the training setting or in a variety of training settings until the trained responses are emitted in novel situations. A related technique might involve gradually changing the stimuli in the training setting to more closely resemble the natural environment or, similarly, introducing training directly into the natural setting. Finally, generalization might be promoted through the use of multiple peer models in order to enhance the likelihood that the retarded child would imitate an unfamiliar peer.

Potential Effects

Another issue of great practical and ethical importance concerns the potential effects of early integration on nonretarded participants. In planning integrated preschool settings, special educators should incorporate systematic procedures for assessing any behavioral changes which may occur in the normal children. There is some tentative evidence that the experience of serving as a reinforcing agent may function to increase peer trainers' skill levels (Siegel & Steinman, 1975). This issue, however, needs further clarification and thus remains a fertile area for future research.

Attitudinal and Affective Development

Finally, the developers of integrated programs should consider the influence of such programing on the attitudinal and affective development of both retarded and nonretarded participants. Early integration, given appropriate structure and instruction, may result in the development of an early attitude of acceptance and understanding by nonretarded children for those different from themselves while offering retarded children an environment that maximally facilitates their behavioral development. The development of successful procedures to realize these outcomes at the preschool level may have far reaching effects on the later lives of retarded individuals due to at least three potential results of such early programing.

First, as nonretarded children grow up with the experience of direct, personal interactions with their retarded peers, the general level of societal understanding and acceptance of the retarded may be expected to increase, while the old attitudes of fear and mistrust should be diminished through early firsthand experience with this population. Second, as a result of such structured interactions with their nonretarded peers, retarded individuals may be expected to grow up with greater repertoires of socially acceptable interactive behaviors and fewer of the stereotypic "retarded" behaviors which so often have led to ostracism and ridicule of the retarded. Finally, and perhaps most significantly, such early training should equip the retarded individual with the processes (e.g., selective imitation of context appropriate behavior) that will enable him to adapt to novel situations in which the specific normal behavior required is not already within his repertoire. If such long range effects are possible, then the success of such research and program development activities as those suggested in this article may ultimately have far reaching implications for the future position of retarded individuals in our society.

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VI. Parents as Partners

Parent Groups: Their Role in a Better Life for the Handicapped

LEO F. CAIN

Volunteer groups for self help purposes have been a part of our nation's history since colonialization. They have, of course, had varying purposes, structures, and memberships. In the 1930's, the focus was health and welfare, and the organizational motivation came from professionals in the field of medicine. Following the Second World War, groups were organized for the welfare of the handicapped and mentally retarded, not only in the United States but also in a number of other countries. These groups were distinguished by the fact that they were organized by parents, and their memberships, although not totally restricted to parents, were primarily composed of parents of children with handicapps.

More than Volunteers

The personal involvement of the parents with the particular problems for which the association was organized resulted in a special type of dedication not found in many other volunteer groups. Parents participated in the organizations and volunteered time in the projects carried on by those groups, not from some altruist basis, but because of a deep felt concern and commitment. This dedication had mixed benefits, but it was the reason for their persistence and success in seeking solutions for their problems.

The existence of some local parents groups can be traced back before the early 1930's—the National Society for Crippled Children dates to 1921. However, the major thrust of the movement came in the 1940's and 1950's with the organization of national groups such as the National Association for Retarded Children and United Cerebral Palsy Association. The rapidity of the growth of these organizations and the effectiveness of their demands for social and educational

From Exceptional Children, May 1976, pp. 432-437. Copyright © 1976 The Council for Exceptional Children

change is testimony to the legitimacy of their need, the intensity of their involvement, and the dynamic quality of their leadership.

Handicaps are not necessarily related to the social status of the family, educational attainment, intelligence, economic influence, or environmental setting. They respect no one and, because of this, handicapped children came from homes representing the complete panorama of American life. The result was a pool of concerned parents possessing the qualities needed for the effective mobilization of effort on the behalf of their children.

They Organize

Informally

Local groups first developed informally, as gatherings of individuals sharing a common problem. Their reason for coming together was to help their children and to help themselves by providing each other mutual psychological support to cope with internal family needs as well as external social pressures. Their concerns first centered about their immediate needs. There were too few institutions for the care of the handicapped, and all types of handicapped individuals were placed together with little or no diagnosis or training provided. In addition, many of these facilities were greatly in need of improvement. Public education did not accept as its responsibility the provision of programs for children with limited capabilities, either mental or physical. The public in general, and legislators in particular, were greatly uninformed about the possibilities for helping this population and were totally unaware of the advances being made in knowledge and techniques on their behalf. Interest in developing methods to help children achieve according to the level of their capabilities was minimal. The concepts of social responsibility and, concomitantly, the appropriateness of allocating public funds for this purpose were just beginning to develop.

Formally

These concerns led the parent groups to organize formally for the purpose of sponsoring a wide diversity of activities. Foremost, of course, was their action in the field of education. Initially, parent groups conducted educational programs through private schools. The assumption was that these educational programs were projects to demonstrate the educational potential for the public segment. Their next step was to sponsor legislation to make programs in special education a function of public school systems; this led to the establishment of teacher training programs and credentials for specialists. Sheltered workshops, vocational training centers, diagnostic facilities, parent education services, preschool and postschool facilities, guardianship plans, short-stay facilities (respite homes), community centers, recreation, research, speech therapy, professional training, and medical services were all types of projects undertaken.

Specializing

As parent groups organized formally, they organized according to specific types of handicaps. The need of the parents for support from others who understood and the discrete problems of each handicap prompted this. There were, for example, individual organizations for the mentally retarded, the cerebral palsied, the deaf, and the blind. And, as a result, when each organization developed a project, it was directed toward the specific need of that particular handicap. At

times, categorization, which has been intensified by parental involvement, resulted in duplication of effort and fragmentation of programs and services. Even when more than one handicap needed a service, each organization developed its own. For example, vocational rehabilitation was originally developed for the physically handicapped only; individual legislation was sponsored to establish a credential for each specialty. On the other hand, the multiply handicapped were often left out, having no service available to them. Because of the benefits to the individual organization in the areas of fund raising, legislation, and public information campaigns, they have been reluctant to cooperate and broaden their scope of activities.

The Parent/ Professional Relationship

In the early history of parent associations, conflict existed between the parents and the professionals. Having had some negative experiences with professionals, particularly in the field of education but also in other support services, parents lacked confidence in them and were hesitant to utilize this resource. At times, a relationship which was almost adversary in nature was observable. However, as the membership grew and the volume of activities and services rendered by parent groups increased, the need for professional assistance overcame their objections. Skills in fund raising, public relations, medicine, social work, psychology, and teaching were all needed and could be provided by professionals. In addition, the professional contributed permanency and continuity to the activities of the group. Parents, however, jealously guarded their prerogatives within the organization and maintained control of the decision making process, while recognizing the contributions of the professionals in policy development. The professional was thus primarily an advisor or consultant. Attitudes are now more positive and many parent groups sponsor scholarships to train professionals and fund professional research projects.

The structures adopted by most parent associations were designed to unite and mobilize resources on a national level for appropriate purposes, such as fund raising, federal legislation, and public information. Yet, flexibility to develop state programs and provide projects which reflected local needs was demanded. This conflict between local autonomy and the strength of the national organization does not seem to have been a hinderance. Parents were effective at both levels. They succeeded in obtaining resources through federal legislation and in implementing programs through state legislation.

They Get Action

Parent groups can be credited with significant advances. Openly using their power as voters and as pressure groups, they have been able to get action and change within the bureaucratic system. Key factors in this achievement have been public information campaigns using the press, the media, special programs, seminars, and conferences, as well as personal contacts between influential parents and key legislators. State and federal offices were established to monitor bills in progress and to assist in drafting legislation. Parent groups brought the needs of the handicapped to the attention of those at the highest level of government. Parent groups were instrumental in the establishment of presidential advisory committees such as the Presi-

dent's Committee on Mental Retardation and the President's Committee on Employment of the Handicapped, with parents themselves being named as members.

For Equal Rights

Recent history reflects an emphasis on advocacy, or the demand for equal rights, and parents and parent groups have actively promoted the rights of the handicapped. Discriminatory practices are being challenged in the courts. Judicial redress is being sought for statutes depriving the handicapped of the right to vote, to own property, to bear children, to speak for themselves, to obtain occupational licenses, or to be eligible for insurance, or excluding them from services. The nature of the permanent impact of court decisions, although at first thought to be landmarks for the benefit of the handicapped, will be determined in the future. Many of these cases are under further litigation, but at this time it can be stated with assurance that constitutional issues are being addressed at a new level of seriousness. The number of lawsuits relating to education has significantly increased. Suits are being filed which seek to eliminate the exclusion of the handicapped from equal access to educational opportunity and the stigma created by labeling children. As appropriate legislation is enacted at the state level, these suits will undoubtedly diminish. All this has been done with parent group support.

And, parent groups are also actively involved in legislation which reflects a new concern for the rights of the handicapped. Here again the right to education, the right to due process protection, and the right to adequate funding are the focal points of concern. Legislation being introduced covers such topics as the trend toward normalization in educational placement and training regular classroom personnel in the needs of the handicapped. Federal legislation is now speaking to nondiscrimination in employment in any program receiving federal financial assistance and the removal of architectural barriers. A significant amount of funding to initiate, expand, and improve educational programs for the handicapped is also being provided by the federal government.

Future Issues

Working Together

As parent groups move into the future, certain issues, although not new, must be dealt with. One is the issue of coordination versus isolation—should associations work together or alone? The case for broadening objectives seems most persuasive. Individual associations need not be abandoned; but where needs are in common, cooperation could contribute greatly to the level of services provided and the number of individuals receiving benefits. In the beginning, programs were obtained on the humane appeal of the specific handicap. At this point in development, however, a broader approach would be to the best interest of all. There is still need to strengthen cooperation not only among the several parent groups themselves, but also among public and private agencies concerned with education, social work, employment, and rehabilitation. Fragmentation of services reduces responsibility and accountability.

For All Citizens

A trend can be seen among parent groups to extend their perspectives beyond the immediate needs of children and to be concerned

about services for the entire life span of the individual. This is reflected in their support of programs providing living arrangements, employment opportunities either in the community or in workshops, and leisure and recreational opportunities. At least one organization has recognized this and changed its name—the National Association for Retarded Children has changed its name to the National Association for Retarded Citizens.

Help in Delivery

And, as parent groups broaden their perspectives, they must also re-evaluate the advisability of providing services in contrast to obtaining them. It seems to be readily accepted that parent groups, as private bodies, can more easily assume the role of experimenter than can bureaucratic, public agencies. Therefore, it follows that new approaches, new techniques, and new services might continue to be developed on a pilot basis by parent groups. Once effective, worthwhile projects are demonstrated, however, it is the public agency which can better finance and deliver the service on the long term basis. The parent groups are thus free to move on to a new experiment, to monitor the effectiveness of programs operated by public agencies to insure that they continue to meet the needs of the clientele, to be involved in the setting of standards or criteria against which programs can be evaluated, or to sponsor preventive research. It is inefficient and costly to duplicate services and programs offered by public agencies.

Mainstreaming

Parent groups have also supported the general concept now being advocated by special educators of moving as many handicapped children as possible back into the regular classroom. This is variously termed normalization, or mainstreaming. Undoubtedly, the segregation of all handicapped children had stigmatizing effect on some, and both the "normal" child and the handicapped child benefit from educational settings which as nearly as possible reflect the social environment. Many parents have realized that mainstreaming places new demands on teacher training, in that all classroom teachers must be prepared to meet the special needs of the handicapped. Appropriate resource materials must be located in convenient, adjacent locations in order to supplement regular classroom materials; educational objectives must be set which are realistic for the child and against which he will be evaluated. Parents have been concerned that not every child can benefit educationally from the regular classroom and that special programs and services must be maintained if every handicapped child is to be served.

A Significant Force

The purpose here has been to show that parent groups have been a significant factor in improving the lot of the handicapped. Like most movements, the parent movement began in a small way, in communities all over the country. Through dedication and effort it evolved into a significant force at national, state, and local levels.

- As they began, they stepped in and provided services, particularly to children, which were ignored by health, education, and welfare agencies. They established special schools, encouraged better health services, and actively worked for upgrading of state institutions housing the handicapped.

- They recognized the need for legislation at the state level to insure improved services and were influential in the enactment of statutes which required schools to provide special education programs and other services such as diagnostic classes, speech pathology, physical and occupational therapy.
- On the national level, they successfully obtained legislation providing funds for research grants, training grants, grants for demonstration programs, and federal aid to the states.
- They have been advocates of the rights of handicapped through sponsoring legislation and in the judicial process.
- They have been concerned about the entire life of the handicapped person and broadened their perspective.
- Their goal is to make available the needed services to every handicapped individual.
- They are becoming aware of the benefits to be accrued from coordination of efforts among parent groups.

Has the success of parent groups negated their need in the future? It is true that much headway has been made. Many of the needs found thirty years ago have at least been partially fulfilled, but these steps have not been equally achieved in all states across the nation. Many handicapped children and adults still go unserved and the present services need to be expanded to reach more people. Goals need continual reevaluation in order to reflect the changes in society and this requires some flexibility within the associations. Their existence is still needed and parent groups can continue to be highly effective.

A Lost Generation of Parents

KATHRYN A. GORHAM

Beckie, the fifth of my five children, is profoundly retarded. The 13 years since she was born have been enlightening ones for me. I have learned enough about other parents and their experiences with professionals, about parent organizations, and about the service system for "exceptional" children to be able to pass as a professional myself and get paid for doing what I used to do as a volunteer. Although I have learned much, I am clearly one of the lost generation of parents of handicapped children. We are parents who are either intimidated by professionals or angry with them, or both; parents who are unreasonably awed by them; parents who intuitively know that *we* know our children better than the experts of any discipline and yet we persistently assume that the professionals know best; parents who carry so much attitudinal and emotional baggage around with us that we are unable to engage in any real dialogue with professionals—teachers, principals, physicians, or psychologists—about our children.

Between birth and the age of 13 Beckie has seen 11 physicians representing 5 specialties. She has also been referred to an audiologist, an occupational therapist, an optometrist, physical therapists, psychologists, and speech pathologists. In answer to the common accusation that parents "shop" for professionals who will give them a less painful diagnosis, I would suggest that most, like myself, see large numbers of professionals because the complexity or severity of the child's condition requires periodic re-evaluation from a variety of viewpoints. One-stop diagnostic centers did not exist when our children were growing up; few exist now, so we have been "referred" from one diagnostician to another.

The Closed Files

Seeing so many diagnosticians and evaluators presents a problem. Not many parents are fortunate enough to have a pediatrician or family physician who will coordinate all the information for them. People move and change doctors. Some doctors are unwilling to be coordinators in the first place. What happens to the reports? They are collected in manila folders that follow the child from clinic to clinic and school to school. This would be fine if one master folder containing copies of all the information were in the hands of the parents. However, few parents are given copies of these reports. Strangers are permitted to read the contents of the child's records; the parents generally are not.

When we parents fill out the application forms for a school, we sign a release form which says that the school may collect information about our child from past diagnosticians and schools. We usually do not ask to *see* the information which is being collected or sent. But we sign our names and give access to people whom neither we nor our children have met, who may read the records, mull over them, and make vital decisions about the education or treatment of our children on the basis of what they read.

Beckie has accumulated a thick folder in her 13 year pilgrimage from professional to professional. I have heard countless "interpretations" of its contents by social workers, but I have only read the accumulation once—last year. I did so then with feelings of guilt, because my access to them came as a professional on the staff of the organization which runs her training program, not as her parent. I found nothing in them that I could not understand, or ask someone about if I did

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From Exceptional Children, May 1975, pp. 521-525. Copyright © 1975 The Council for Exceptional Children

not, and nothing that could not have been discussed freely and openly with the person who wrote it. And I suspect that my case is typical rather than atypical. Sometimes the record collection process meant delays of 2 or 3 months before interviews for application to a school were granted. How much simpler it would have been if I had been able to carry her records with me.

The Ironies

Anyone who has lived with a handicapped child during the last decade or two will be able to construct a list of ironies that he has learned to live with. The following ones are derived from my Beckie notebook, as well as from talks with other parents.

1. The responsibility for monitoring our children's progress through the fragmented service system has been ours, but the array of physicians and other professionals we have seen have assumed that we could not possibly understand the complexities of their trade or that it would take too much of their time to explain them to us. We have had the responsibility, but educating and equipping us to do the job better was generally not considered a part of the diagnostic obligation.
2. A parent who thinks something is developmentally wrong with his child usually turns to a physician who has probably only had minimal exposure to the total needs of the handicapped child and his family. Physicians are notoriously unschooled about nonmedical services and often cannot tell the parent what schools are available for handicapped children, or even *if* schools are available.
3. The more specialized the diagnostician is, the less concerned he is to give information to the parents and the less willing he is to deal with the parents' situation and feelings. Referral of the mother for counseling has been a common and comfortable solution for the physician or other diagnostician; but when parents are repeatedly forced to ignore many of their concerns, they are never free of them.
4. Some of us are told repeatedly by professions that we should institutionalize our children, but we find institutions to be places that are the least equipped to help children.
5. We could release information about our children to professionals, but we have not been allowed to read it ourselves.
6. Now, we are often told that the best place for our children is in the community, in a neighborhood, with his family or a substitute family. Yet there are not enough group homes to begin to meet this demand, and foster homes are equally hard to come by. That leaves, as before, our own homes with respite care and home-support services, still only a possibility in most communities.
7. It is now commonly accepted that our children have a constitutional right to a free education, but extra appropriations to make the classrooms materialize have not yet followed the legislation and litigation. We are told again to inform our legislators of the need. Why must we tell them *again*?
8. In the past we were made to feel guilty when we did not institutionalize our children, and now, under the new normalization principle, we are made to feel guilty if we do.

The Effects

So much for the ironies of our past experiences and our current dilemmas. We have learned to live with them, but not without accumulating some scars which clearly mark us as members of the "lost generation":

- We are angry. We have gone to the helping professions and have received too little help.
- We are still in awe of specialists and intimidated by their expertise.
- We are unduly grateful to principals or school directors for merely accepting our children in their programs. The spectre of 24 hour a day, 7 day a week care at home, with the state institution as an alternative, has made us too humbly thankful.
- We demonstrate a certain indifference to the latest bandwagon on which the mental retardation experts are riding. Mixed messages have been so much a part of our history that, rather than join the parades, we tend to listen politely, then do what we think best for our child. We are often, therefore, accused of apathy.
- Many of us have concluded that it is best not to worry about next year (or tomorrow) because things might be better then (or worse). Certainly it seems impossible to "plan for the future" as most of us are so frequently admonished to do. Generally I have found that those who wanted me to plan for Beckie's future were sug-

gesting that I place her on the roster for permanent residence in the state institution. That is, in fact, the only option available at present. In Maryland I cannot even provide for her future by putting money aside and setting up an inheritance. If I die, and she must enter an institution, the state's general fund becomes heir to her belongings, and the money saved could go for something as remote to her well being as highway construction. So we worry about the future, but planning for it is not yet really a fruitful activity.

- We are tired. We have kept our children at home and raised them ourselves, with all the extra demands on time and energy which that implies—often without much help from the community, neighborhood, professionals, friends, or relatives, and in fact commonly against their well intentioned advice. We have founded parent groups and schools, run them ourselves, held fund raising events to pay teachers and keep our little special schools afloat, organized baby sitting groups, and summer play groups. We have built and repaired special playground equipment for our children's use at home and at school. We have painted classrooms and buildings; we have written legislators and educated them about our children's needs and rights. We have collated and stapled hundreds of newsletters, attended school board meetings, lobbied at the state legislature for better legislation for handicapped children, informed newspaper reporters about inhumane conditions in institutions, and written letters to editors. All this we have done for a decade or more.

Small wonder that so many professionals would often prefer *not* to deal with parents. Few of these qualities encourage the kind of open, frank, informative dialogue that the professional wants—possibly as much as the parent *should* want it.

Changing habits of communication cannot happen without efforts from both parents and professionals. Here are some suggestions for achieving the dialogue that could be so helpful to the parent, the professional, and most importantly, to the child.

Suggestions for Professionals

Let the parent be involved every step of the way. The dialogue established may be the most important thing you accomplish. If the parent's presence is an obstacle to testing because the child will not "cooperate" in his presence, the setup should include a complete review of the testing procedure with the parent. (Remote video viewing or one-way windows are great if you are richly endowed.)

Make a realistic management plan part of the assessment outcome. Give the parents suggestions for how to live with the problem on a day to day basis, considering the needs of the child, the capacities of the family, and the resources of the community. Let the parents know that you will suggest modifications if any aspect of the management plan does not work.

Inform yourself about community resources. Give the parents advice on how to go about getting what they need. Steer them to the local parent organization. Wherever possible, make the parent a team member in the actual diagnostic, treatment, or educational procedures. It will give you a chance to observe how the parent and child interact.

Write your reports in clear and understandable language. Professional terminology is a useful shortcut for your own notes, and you can always use it to communicate with others of your discipline. But in situations involving the parent, it becomes an obstacle to understanding. Keep in mind that it is the parent who must live with the child, help him along, shop for services to meet his needs, support his ego, and give him guidance. You cannot be there to do it for him, so the parent *must* be as well informed as you can make him. Information that he does not understand is not useful to him. The goal is a parent who understands his child well enough to help him handle his problems.

Give copies of the reports to parents. They will need them to digest and understand the information in them, to share the information with other people close to the child, and to avoid the weeks or months of record gathering which every application to a new program in the future will otherwise entail.

Be sure the parent understands that there is no such thing as a one shot, final, and unchanging diagnosis. Make sure he understands that whatever label you give his child (if a label must be given) is merely a device for communicating and one which may have all kinds of repercussions, many of them undesirable. Make sure he understands that it

says very little about the child at present and even less about the child of the future. Caution him about using that label to "explain" his child's conditions to other people.

Help the parent to think of life with this child in the same terms as life with his other children. It is an ongoing, problem solving process. Assure him that he is capable of that problem solving and that you will be there to help him with it.

Be sure that the parent understands his child's abilities and assets as well as his disabilities and deficiencies. What the child *can* do is far more important than what he cannot do, and the parent's goal thereafter is to look for, anticipate, expect, and welcome new abilities and to welcome them with joy when they appear. Urge him to be honest with his child. Tell him that the most important job he has is to respect his child, as well as love him, and to help him "feel good about himself." Tell him that blame, either self blame on the part of the child must be avoided.

Warn the parent about service insufficiencies. Equip him with advice on how to make his way through the system of "helping" services. Warn him that they are not always helpful. Tell him that his child has a *right* to services. Tell him to insist on being a part of all decisions about his child.

Explain to him that some people with whom he talks (teachers, doctors, professionals of any kind, or other parents) may emphasize the negative. Help train the parent not only to think positively but to teach the other people important in his child's life to do so.

Suggestions for Parents

You are the primary helper, monitor, coordinator, observer, record keeper, and decision maker for your child. Insist that you be treated as such. It is your right to understand your child's diagnoses and the reasons for treatment recommendations and for educational placement. No changes in his treatment or educational placement should take place without consultation with you.

Your success in getting as well informed as you will need to be in order to monitor your child's progress depends on your ability to work with the people who work with your child. You may encounter resistance to the idea of being included in the various diagnostic and decision making processes. The way you handle that resistance is important. Your best tool is not anger. Some of your job will include the gentler art of persuasion. Stay confident and cool about your own abilities and intuitions. You know your child better than anyone else; you are a vital member of the team of experts.

Try to find a person who can help you coordinate the various diagnostic visits and results. Pick the person with whom you have the best relationship, someone who understands your role as the principal monitor of your child's progress throughout life and who will help you become a good one.

Learn to keep records. As soon as you know that you have a child with a problem, start a notebook. Make entries of names, addresses, phone numbers, dates of visits, the persons present during the visits, and as much of what was said as you can remember. Record the questions you asked and the answers you received. Record any recommendations made. Make records of phone calls too; include the dates, the purpose, and the result. It is best to make important requests by letter. Keep a copy for your notebook. Such documentation for every step of your efforts to get your child the service he needs can be the evidence which finally persuades a program director to give him what he needs. Without concise records of whom you spoke to, when you spoke to him, what he promised, and how long you waited between the request and the response, you will be handicapped. No one can be held accountable for conversations or meetings with persons whose names and titles you do not remember, on dates you cannot recall, or about topics which you cannot clearly discuss.

Understand the terminology used by the professional. Ask him to translate his terms into lay language. Ask him to give examples of what he means. Do not leave his office until you are sure you understand what he has said so well that you can go to your child's teacher, for instance, and explain it in clear, understandable language. Write down the professional terms too. Knowing them might be useful some time.

Ask for copies of your child's records. Don't just try to remember what was said in conferences. Learn as much as you can about your child's problem by reading. Don't believe everything you read. Remember: Books are like people. They might present only one side of the story.

Talk freely and openly with as many professionals as you can find. Talk with other parents. Join a parent organization. By talking with people who "have been through it already," you can gain a perspective on your particular problems. You will also receive moral support and will not feel quite so alone. Get information from parent organizations about available services and about their quality. Remember that a particular program might not help your child even though it has proved helpful for another child. Visit programs if you have the time and energy to do so. There is no substitute for firsthand views.

Stay in close touch with your child's teacher. Make sure you know what is being done in the classroom so that you can follow through at home. Share what you have read with the teacher. Ask for advice and suggestions. The two of you are a team, working for the same goals. Make your child a part of that team whenever possible. He might have some great ideas.

Listen to your child. Only he can give you his point of view. Let him know that being different is fine. Your child will learn most from your example. Help him to think of problems as things that can be solved if people work on them together.

Changes and the Future

The new parent today faces a world which is fortunately improved in many ways. The fact that his child has a legal right to education and training does not surprise this parent, and he *expects* programs to be provided. Consequently his attitude toward his school system and the people in it is different. He expects the vital services to be provided. He is not asking for services as if they were charity nor is he left with no option other than the institution if the few existing public or private special classes refuse his children.

Some things have not changed, however, and will not, unless we make them. The diagnostic experience is often still traumatic to many parents who receive little counsel, encouragement, or on-the-spot information about where to go for more support and help. Obviously such experiences and the damage they do will simply repeat themselves with another generation of parents unless the individuals involved take deliberate steps such as the ones outlined here to avoid that possibility.

Communicating with Parents: It Begins with Listening

PAUL LICHTER

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It has been observed in both research studies and autobiographical accounts by parents that one effect of raising a handicapped child is isolation. Parents may feel isolated from members of the extended family, neighbors, and old friends who fear, resent, or feel uncomfortable and embarrassed by the handicapping condition. Many parents either anticipate or actually experience social rejection, pity, ridicule, and the related loss of self esteem and social prestige.

It is not uncommon to find parents of handicapped children withdrawing from social participation and altering plans which might expose them or their child to social rebuff. This withdrawal or rejection may further frustrate the parents and thereby increase their hostility, resentment, or anger toward those around them. This, in turn, makes it more likely that their family, friends, and neighbors will want to have even fewer associations with them. Parents may find themselves in the grip of a vicious cycle of rejection and isolation.

This becomes an even more significant problem for parents of young handicapped children who have only just begun the painful and lengthy "coming out" process in which they publicly acknowledge their child's handicapping condition. Part of this process involves the replacement of unhelpful or negative family members and friends with a new constellation which might include other parents of handicapped children, community agencies or associations, and special educators as their primary source of emotional support and understanding. But, prior to the development of these new relationships, it may be the special teacher who best comes to know and care for the child. The special teacher can be a powerful therapeutic helper as the family struggles with problems of isolation.

NEED FOR UNDERSTANDING

The thrust of recent legislation and judicial decrees has been to bring an increasing number of children with a variety of handicapping conditions into the schools, at earlier ages than ever before. This situation implies an increasing number of contacts with parents who are new to the task of raising a handicapped child and who will need considerable understanding and support as they learn to accommodate and adapt to their child's special needs. This need for understanding, made even more crucial by the possible isolation from traditional sources of family or neighborhood support, places an additional obligation upon the special educator to form a helping relationship, not only with the children in the classroom, but with their parents as well. In addition, these relationships provide the teacher with an opportunity to be a source of positive growth for the entire family, as well as the opportunity for personal growth.

LISTENING TO OTHERS

The process of helping another person begins by accepting the total person in a nonjudgmental manner, and communicating an attitude of

From *TEACHING Exceptional Children*, Winter 1976, pp. 66–71.
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acceptance as clearly as possible. One very direct way to communicate acceptance of others, particularly to those in stress, is to *listen* to their feelings and to the ways in which those feelings are "coded" in language.

Listening may be either passive—where one simply listens in relative silence and where silence is an expression of openness and acceptance—or it may take a more active form in which the listener puts his understanding of what was said (and the feeling behind the verbal statement) into his own words and feeds it back to the speaker for verification and clarification.

This technique, described as "active listening," is a profound way to communicate a willingness to hear, to understand, and to have empathy with someone who is isolated and struggling to be heard. Active listening has its roots in the client centered therapy of Carl Rogers (1951). The continuing success of Thomas Gordon's *Parent Effectiveness Training* book (1970) and courses attests to its real value for parents, teachers, and others in the helping professions.

ROADBLOCKS TO COMMUNICATION

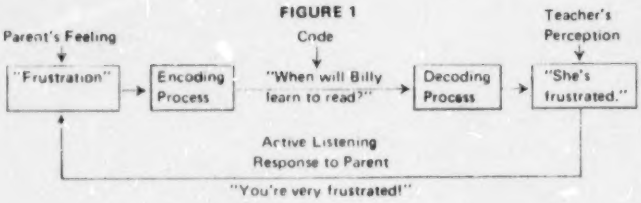
Typically, it is assumed that being an effective helper means giving advice. When friends or family members come to us with a problem, they will often ask, "What shall I do?" or "What would you do if you were I?" Rather than actively listening to the content and feelings implied by these kinds of questions, we all too willingly respond with advice; i.e., "If I were you, I would . . . ."

Let's face it, being asked for advice and giving it quickly is a powerful reinforcer and can be interpreted as an affirmation of our wisdom, vision, and mental well-being. Relinquishing this power is difficult and threatening, particularly if the advice giver has occasional second thoughts about his own wisdom, vision, or mental well-being.

Teachers often have the mistaken notion that it is their duty to help parents accept or adjust to their handicapped child by giving advice or direction. This attitude may reflect the possibility that the teacher has already made a judgment of the parents and has evaluated them as maladjusted, unrealistic, or disturbed. Given this predisposition, it is possible that the teacher may turn to any number or combination of generally unhelpful strategies such as ordering, admonishing, exhorting, moralizing, preaching, advising, blaming, psychoanalyzing, ridiculing, lecturing, questioning, humoring, or criticizing the parents.

Take, for example, a hypothetical situation in which a mother has enrolled her young handicapped child in a preschool or infant stimulation program, but fails to bring the child to school on a regular basis. The teacher decides to discuss these repeated absences and reverts to one of the above mentioned strategies. (See box below.)

FIGURE 1



LISTENING TO PARENTS

Listening is a skill which involves decoding the speaker's message to more fully understand the emotion or feeling behind the message. The listener is *active* in the process in that he reflects or provides verbal feedback to the speaker to test his own understanding of what has been said (see Figure 1). Another reason for listening actively is to communicate to the speaker that you are trying to understand the basic message and, if successful, that you have shared his verbal exploration. Brammer (1973) stated that a reflection accurately executed to the speaker's satisfaction is an objective definition of understanding.

The active listener translates his raw perceptions of what the parent is saying into more simple, precise, and culturally relevant language. The listener feeds back only what was said and carefully avoids adding his own ideas. To help in this process, the listener should constantly be asking internally, "What is this

Ordering:	"You must bring Cindy to class on a more regular basis."
Admonishing:	"If you don't bring her to school you'll be sorry later on."
Exhorting:	"You shouldn't act like this."
Moralizing:	"It's your responsibility as a parent to see that Cindy gets all the help she needs."
Preaching:	"You should show more respect for education."
Advising:	"Let me suggest that you bring the child more often."
Blaming:	"You're doing Cindy a lot of harm."
Psychoanalyzing:	"You're just afraid to face the truth about Cindy's handicap."
Ridiculing:	"You're acting like a little child yourself."
Lecturing:	"Handicapped children need this kind of early intervention."
Questioning:	"Why don't you come more often?"
Humoring:	"Maybe you'll be lucky and break your leg so you won't have to come more often."
Criticizing:	"You're not behaving very rationally."
Persuading with logic:	"Don't you realize that early intervention can minimize the effects of the handicapping condition?"

parent saying to me?" At the time of a natural break in the flow of ideas and feelings, the listener gives a concise summary of what he has heard. The feedback may include both cognitive content and feelings, if these are an important part of the speaker's message. The novice active listener would do well to focus initially on the content side and approach the reflection of emotion with some caution until more comfortable and practiced with the technique. Of course, an emotionally loaded message cannot and should not be "diverted" or left unrecognized.

The teacher should look for some cue that his reflection has been helpful and adequately reflected. The box below shows two examples of active listening.

Example 1

Parent: I'm really pleased with the progress Loretta has been making with the new speech therapist; he's so thoughtful and kind to always keep us informed about her progress.

Teacher: You like him very much, then.

Parent: I do, very much.

Example 2

Parent: I just don't understand. One day I feel that Gregory really likes his school, and the next day he says he hates it.

Teacher: He really confuses you.

Parent: Yes, he sure does, and besides . . . .

There are some cautions in the use of active listening. If the listener is not careful, he may develop a highly stylized way of responding which may become annoying to the speaker.

Worse, the speaker may interpret the stylized response as artificial, phony, or indicative of the listener's lack of genuine concern. Phrases such as "I hear you saying . . . ." or "What I think you're saying is . . . .", should not be repeated too often. Using a reflection may seem a bit unnatural at first until the active listener begins to experience some rewards in the form of encouraging responses from the speaker. After a while it will feel more like a natural form of communication than the gaggle of questions, opinions, veiled threats, or bland conversation fillers that we too often employ in our everyday communication.

Ultimately, parents should experience a feeling of being understood as a consequence of active listening; for many parents of a handicapped child, this may be the first step out of isolation. Parents may also experience more specific outcomes in the form of developing a sense of connection and direction to a string of otherwise seemingly rambling statements.

Active listening fosters a kind of catharsis and helps parents initially to identify and subsequently to accept their own feelings. In addition, people tend to feel comfortable with the listener who reflects skillfully. In the school setting this may influence the parent to be more open to a cooperative home-school relationship. Active listening is a technique which encourages parents to think independently and to discover their own solutions; it communicates the teacher's belief and respect in the parents' potential for self discovery.

Active listening is a skill which requires considerable practice in a laboratory or clinical setting. Many colleges and universities offer basic counseling or guidance courses which introduce and allow for the guided practice of active listening skills. Inservice programs or some of the commercially available courses such as Parent Effectiveness Training (PET) provide excellent training opportunities for those who desire more experience with this technique.

A summary of guidelines for active listening includes:

1. Listen for the basic message of the speaker.
2. Restate to the speaker a simple and concise summary of the basic content and/or feeling of the message.
3. Observe a cue or ask for a response from the speaker to confirm the accuracy and helpfulness of the reflection.
4. Allow the speaker to correct your perception if it was inaccurate.

ATTITUDES REQUIRED AND RISKS INVOLVED

Gordon (1970) stressed that active listening is not simply an external technique "pulled out of the tool kit" whenever someone has a problem. Rather, it is a method for putting to work a basic set of attitudes about human relationships. Without these attitudes, the teacher who attempts to listen to a parent will appear to be false, empty, mechanical, or insincere. Whenever these attitudes are absent, a teacher cannot be an effective active listener. Gordon listed basic attitudes which must be present during conversation:

1. You must want to hear, and have the time to hear, what the parent has to say. If you don't, say so.
2. You must want to be helpful with the parent's problem at that time. Otherwise, wait until you do.
3. You must be able to accept the parent's feelings, whatever they may be or however different they are from yours. To accept his feelings does not mean that you must accept them as your own, but simply that you allow

him the right to feel as he does. It is a way of saying, "I can be me, and you can be you."

4. You must believe in the parent's ability to find solutions to his own problems. This requires the teacher to give up decision making power over the parent's life.

The risks involved in active listening stem from the process itself which requires the listener to suspend his own thoughts and feelings. Active listening is not easy; it is physically and mentally demanding. It requires that we attend fully to another person, that we cease to focus on our own concerns or problems, that we suspend our moralistic and ethnocentric biases and judgments. In short, it compels the listener to see the world as another sees it.

The teacher who willingly listens to parents risks having his opinions and attitudes changed and invites the possibility of having to reinterpret his own experiences. For some teachers this will be seen as an intensely threatening experience and for this reason they should refrain from its use. Others will choose to actively listen to parents as part of their personal and professional commitment to families of handicapped children, as well as in the interest of expanding their own human potential.

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Parents—Powerful and Necessary Allies

ROGER KROTH

Public Law 94-142 will be regarded by some educators as a threat and a challenge from parents and by others as an opportunity for parents and teachers to work together. Perhaps the major difference between the two groups of educators is one of attitude, because to a certain extent the behaviors will be similar. Those who are fearful of the law will take steps to insure that confidentiality of information is insured, that children are tested in a nondiscrimatory manner, that individualized education programs (IEP's) are written with long and short term goals, that due process procedures are guaranteed, and that parents are notified of any changes in program.

Those who look forward to the opportunity for parents and teachers to plan cooperatively for the welfare of children will take the same steps. While one group will carefully collect and document defensive data (i.e., a log of the number of phone calls made and registered letters sent to parents informing them of placement decisions), the other group will be equally concerned with attempts to get parents actively involved in educational decisions regarding their own children. In many ways it is unfortunate that laws must be passed to insure dialogue between parents and teachers when many teachers have experienced the benefits of this type of interaction for years.

Hardly any educator would deny the strong influence that the home has on a child's growth and development. In fact, when a child does not learn or misbehaves in the classroom, parental attitudes and behavior are usually highlighted as the major reason. If parental influence is accepted as a potent force in child behavior that can be for better or for worse, then educators have little choice but to establish a working relationship with parents.

VALUES AND ATTITUDES

As a behavioralist, there is a tendency to ignore values and attitudes because of the difficulty in measurement. However, one should recognize that people often act on the values they hold rather than "hard" data. Millions of people smoke cigarettes even though data indicate that this can be harmful to their health; large numbers of adults and children are overweight even though data indicate that this can lead to early death or severe health problems; teachers do not use daily report card systems even though data indicate that this technique helps accelerate the growth of many children.

Just how important values are can be tested by trying to teach behavior modification techniques to parents or teachers who do not "believe" in rewards for correct behavior. Or, try to convince a number of parents who believe in going back to the basics that it is important to teach their children socialization skills. Therefore, it becomes necessary for teachers to be aware of their own values and to be cognizant of the values that parents bring to conferences or parent group meetings.

There are a number of sources that teachers may turn to as aids in value clarification or assessment:

1. *Engage in values clarification activities.* Simon, Howe, and Kirschenbaum (1972) have prepared a number of values clarification exercises for students and teachers. Some may be carried out alone and others involve other people.
2. *Engage in values assessment techniques.* Kroth and Simpson (1977) have included a number of techniques for assessing one's own values as they relate to parents. Such exercises as "Who Am I," "The Balance Scale," and "Are You a Teacher Who . . ?" for teachers, or "Are You a Parent Who . . ?," and "Whom Would You Tell?" for parents, may be helpful in reviewing values.
3. *Develop your own values assessment techniques.* It would probably be helpful for each teacher to spend some time with paper and pencil to do some introspection or to meet with some other teachers in "rap sessions" on what each individual believes about teaching and working with parents.

The same positive attitude and feeling of confidence that teachers have toward working with exceptional children will produce fruitful results in working with their parents.

CONFERENCING SKILLS

Most special educators are knowledgeable, skillful, and well trained in working with exceptional children. Many of the same skills are effective in working with parents. Following are some of the factors that may influence the interaction between parents and teachers:

1. *Environment.* An area that is comfortable and free from interruptions seems to be conducive to good conferences. Placing a table between parent and teacher seems to act as a barrier to discussion. (Kroth & Simpson, 1977).
2. *Listening.* A teacher who is a good active listener can gain a great deal of information and can help parents in problem solving conferences. The responsive posture and attending skills that a teacher uses with children are very effective with parents (Kroth, 1977).
3. *Recording.* Learn to write down any important information that parents may share. When you go to a doctor or lawyer, you expect the professional to make notes. This is a technique to help you remember, but it also stresses to the parent that you care enough about the information to record it. The information then can be feedback to the parent to insure its accuracy.
4. *Timing.* Just as children like to know when assignments are due or how much time they have to work on a project, parents appreciate knowing how long the conference will be or how often they will be expected to come. Adhering to time limits in both the length of time and number of conferences seems to enhance the effectiveness of parent/teacher problem solving conferences (Barten & Barten, 1973).

There are a number of books that may be helpful to teachers. Following is a list of some that are in paperback:

Benjamin, A. *The helping interview.* Boston: Houghton-Mifflin, 1974.

D'Evelyn, K. E. *Individual parent teacher conferences.* Columbus, OH: Bureau of Publishers, Teachers College, 1963.

From TEACHING Exceptional Children, Spring 1978, pp. 88-90.
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Kelly, E. J. *Parent-teacher interaction—A special education perspective*. Seattle: Special Child Publications, 1974.

Kroth, R. *Communicating with parents of exceptional children*. Denver: Love, 1977.

Kroth, R. L., & Simpson, R. *Parent conferences as a teaching strategy*. Denver: Love, 1977.

The conference is an opportunity for the significant adults in a child's life to get together for joint planning. As the child becomes older, he/she should be included also.

PARENT EDUCATION

Professionals recognize that parents need to be involved in the education of their own children. There are not enough professionals to provide all of the services needed, but probably more important is the need for consistency between school and home.

Many of the methods and materials used by teachers in the classroom can be replicated in the home by parents. Parents have been taught filial therapy (Guerney, 1969), behavior management (Adamson, 1970), to test their own children (Kroth & Simpson, 1977), plus how to teach their children to read, to be assertive, to use effective parenting and bonding, etc. (Scholl & Kroth, in press). Classroom teachers have involved parents as aides and have taught them to grade papers, record data, listen to children read, and to run such programs as the Monterey Reading and Mathematics programs. With the success of a variety of parent education programs, it is reasonable to expect that progressive special educators will become increasingly involved in parent education.

In designing and planning parent programs, the educators will want to consider the following factors:

1. *Heterogeneity*. Parents are not a homogeneous body. The only thing they may have in common is a handicapped child. Some will be well read, some will be skilled modifiers, and some will be good listeners. The educators will need to analyze the parents' needs just as the childrens' needs are taken into consideration in the classroom i.e., differential diagnosis should lead to differential programing.
2. *Size*. In general, parent education groups should be kept small. Most programs reported in the literature seem to run from 6 to 10 individuals plus the group leader(s). It is extremely difficult to have meaningful interaction in groups of more than 10. Large groups usually end up being lectures with a one way flow of information.
3. *Time*. A parent education program should have clear objectives and usually a specified number of sessions. For example, if a teacher can say to parents that they will be involved in a program where they can learn to help their children read and that it will involve four 1 hour sessions, parents seem to respond better than if the goals are vague and the length of commitment is not clear.

Special educators have a number of skills and techniques to share with parents. Strategies for designing programs are described in greater detail in *Getting Schools Involved with Parents* (Scholl & Kroth, in press). Basically, the same process that a teacher goes through in developing a lesson plan for a teaching unit applies to developing an individualized parent education program.

COMMERCIAL PROGRAMS

There are a number of commercial materials that have been developed in the last few years. Most of these programs require a minimum amount of background to implement. They include leaders' manuals and other necessary materials.

The advantages of using commercial material are that it insures that basic points will not be overlooked by the presenter and the audiovisual materials provide variety to the workshop. The disadvantage is that "canned" presentations never seem completely right for a particular group. Usually the presenter ends up modifying the program by leaving something out or adding to it.

The following kits address various phases of parenting, parent education, or techniques for working with parents. Some are relatively "user free" but most of them should be used by skilled leaders.

Systematic Training for Effective Parenting by Don Dinkmeyer and Gary D. McKay. Published by American Guidance Service, Inc., Circle Pines, Minnesota 55014, 1976.

Managing Behavior: A Parent Involvement Program by Richard L. McDowell. Published by B. L. Winch and Associates, P.O. Box 1185, Torrance, California 90505, 1974. Also distributed by Research Press, Champaign, Illinois.

Even Love is Not Enough: Children with Handicaps, produced by Parent Magazine Films, Inc., 52 Vanderbilt Ave., New York NY 10017, 1975.

The Art of Parenting by Bill R. Wagonseller, Mary Burnett, Bernard Salzburg and Joe Burnett. Produced by Research Press, Champaign, Illinois, 1977.

Keeping in Touch With Parents: The Teachers Best Friends by Leatha Mae Bennett and Ferris O. Henson. Published by Learning Concepts, 2501 N. Lamar, Austin, Texas 78705, 1977.

As interest in parent/teacher interaction increases, one can expect that large numbers of kits will appear on the market. Just as with any commercial teaching materials, teachers will need to be judicious in selecting kits that are appropriate for their parent population.

CONCLUSION

Working with parents may be one of the most important and significant activities that educators can engage in. Not only is the activity mandated by law but the development of consistency between school and home may make it possible for children to grow enough to function in society.

With the advent of Public Law 94-142, parents as well as teachers need to learn how to confer. Some special educators have already started programs to teach parents how to prepare for conferences and how to be active participants in appraisal and review committee meetings. The assumption is that the more parents know about educational techniques and procedures, the more active they can be in the educational process.

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Conclusion

The Yet To Be Served—A Perspective

HERBERT J. PREHM
JAMES E. MCDONALD

IN *Futures of Children*, Hobbs (1975) articulated a set of principles that could serve as a basis for providing the children of our nation with the best care and education of which we are capable. Later that year the *Education for All Handicapped Children Act of 1975*, Public Law 94-142, established, through law, a number of the principles presented in *Futures of Children*. Both documents reflected the advocacy of individual rights, court decisions, and intense study of issues and procedures revolving around the identification, classification, and education of children who proved difficult for societal institutions to accommodate within their traditional patterns of service. A central principle of both documents was the tenet that each child has a right to an individualized education.

Priority for the delivery of educational services under Public Law 94-142 has been assigned to severely handicapped and unserved children. A second, but equally important, priority is the provision of services to mildly handicapped and underserved children. While these priorities appear to be clear and to advocate the right to education for all handicapped children, implementation of programs designed to meet these priorities is variable. As a result, there remain handicapped children *yet to be served*.

This issue of *Exceptional Children* is focused on the Yet To Be Served. The purpose of the issue is threefold. First, this issue of the journal is designed to explore the issues and opportunities involved in meeting the educational needs of the yet to be served. Second, the issue is intended to provoke discussion and debate that will clarify our opportunities for service. Third, the issue will, hopefully, stimulate increased efforts in behalf of those handicapped children yet to be served.

This article is intended to serve as an introduction to the overall topic of the yet to be served. It is our purpose to (a) present an alternative perspective of the exceptional child; (b) provide a brief overview of the state of the art with respect to the yet to be served; and (c) briefly discuss three issues not discussed by the other articles included in this issue of *Exceptional Children*.

Exceptional Children and Youth—A Perspective

Many definitions of exceptional children have been advanced over the years. Most definitions emphasize that the exceptional child is one who cannot obtain maximum benefit from the usual school program afforded the typical child. Exceptionality is usually attributed to intellectual, physical, sensory, or socioemotional causes. Because the exceptional child cannot obtain maximum benefit from the usual school program, supplemental, specialized educational services are required. It is important to note that it is the behaviors of the child that lead to referral and classification as exceptional. These same behaviors can be described as skills and the child's performance described as skill levels.

Based on this analysis, we prefer to define exceptional children and youth as *children and youth who have motor, self help, cognitive, or personal-social skills that deviate significantly from the skill levels of their same age cultural or ethnic group peers*. This definition of exceptional children and youth focuses on the behavioral skills of the child. The child's skill deviation can be in one or more of the skill domains. The definition does not state that exceptionality is due to deafness, blindness, retardation or any other internal trait. Rather, the definition stresses that a child is exceptional because the skill levels demonstrated by the child are significantly different from the skill levels exhibited by the child's age and cultural group peers.

Using this definition as a base, handicapped children can be defined as children whose

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From Exceptional Children, April 1979, pp. 502–507.

skill levels are significantly below those of their peers. Gifted children would be those who exhibit skill levels significantly above the skill levels of their peers.

Implicit within the definition is an interaction between biological attributes of the child *and* the degree to which the child has been taught. While biological damage may produce sensory, intellectual, or physical impairment, the skill levels demonstrated by the child are a result of both the damage *and* the degree to which the child has been taught. Instruction is, therefore, also a significant determinant of exceptionality.

Consideration of cultural, ethnic, and group age peers have been included in the definition because of an accumulation of data (e.g., Mercer, 1973) that has demonstrated that failure to take cultural/ethnic variables into account has resulted in excessive numbers of minority group children being misclassified as handicapped. Data adjusted for cultural context demonstrates the need to relate the skill levels of exceptional children to the skill levels exhibited by both their cultural and age group peers.

The definition avoids defining exceptional children in terms of the public school. Thus, the definition opens the age range within which persons can be considered exceptional. By avoiding reference to the school, the definition also recognizes the reality that the education of exceptional children occurs in a wide range of settings. A further advantage of the definition is its stress on skill levels. This emphasis places the focus of instruction in its proper perspective: the improvement of skill levels.

Efforts to meet the educational needs of the yet to be served will have to focus on the delivery of special education in a wide variety of settings and on age groups outside those usually served by the school. Educational efforts in behalf of the yet to be served must also focus on the enhancement of each child's motor, self help, cognitive, and personal-social skills.

The State of the Art

Identification and Evaluation

One reason for the existence of the yet to be served as a group is the fact that they are sometimes difficult to identify and evaluate using traditional means. Our procedures and evaluation tools are not readily adapted to multihandicapped, infant, or multicultural exceptional children. Comparing children to a norm that does not represent them or interpreting test results based on extrapolated norms presents serious problems when determining the eligibility of children for special services. Evaluation of exceptional children (i.e., specific testing and measurement practices) needs to be reviewed critically and presented in a later issue of this journal.

Progress is being made in the development of standardized testing procedures for some subgroups of the yet to be served. The contributors to this issue note, however, that most current, effective assessment efforts are designed to analyze functional behaviors (i.e., skills) as a basis for instructional planning.

While progress in developing procedures for assessing the functional skill levels of exceptional children is beig made, development of procedures and tools for identifying the yet to be served is hampered by a variety of problems. Children with mild or subtle skill deviations are being passed over in favor of children with more extreme deviations. Many teachers are unprepared to recognize mild deviations in skill development. Systematic referral programs for children with mild deviations are underdeveloped. Teachers may also be reluctant, as noted in Meyen's article, to refer handicapped children for evaluation. Because of compliance audits, local education agencies may be directing evaluation resources to the more obvious exceptionalities. If the allocation of evaluation resources is inequitable, it is likely that some mildly handicapped children are not being identified and are, therefore, at risk for being underserved. In the rush to identify and evaluate handicapped children, the gifted, including minority gifted and handicapped gifted, are often overlooked or assigned low priority. Each of these problems contributes uncounted numbers of children to the population of the yet to be served.

Intervention Strategies

The articles that follow document the diversity of the population of the yet to be served. Each of these subgroups presents unique educational problems and opportunities. As a result, diversity of instructional effort is the norm. Documentation of the effectiveness of the developing instructional efforts is frequently lacking. The development of instructional programs based on behavioral skill analyses will

lead, however, to the acquisition of data demonstrating program effectiveness for each group.

A number of instructional problems are common to each of the subgroups discussed. What should these children be taught? How does what they need to be taught relate to the regular curriculum? How does the curriculum relate to the skills needed to function as independently as possible as adults? Under what conditions is the curriculum most effectively delivered? How does the curriculum accommodate unusual educational settings (e.g., correctional facilities, group homes)? What curriculum and setting is appropriate for infants or young adults? How do we involve the regular educator in the instructional program for the yet to be served? While each of these problems is common to each group of the yet to be served, each solution is as varied as the subgroups themselves.

Resource Allocation

While allocating funds for resources and support services based on numbers of children with categorical handicaps might be administratively expedient, such an allocation system implies a state of the art that simply does not exist. Tying financial resources to categorical disabilities promulgates beliefs that (a) categorical disabilities are operationally defined and functional; (b) children of one disability are homogeneous and exclusive of children of another disability; (c) knowledge of a child's disability predicates the selection of one instructional program over another; (d) there is a significant interaction between diagnosis, teaching program, and change in skill level; and (e) *all* exceptional children, that is, those in need of special services, will be identified and served adequately via a categorical model. These beliefs have been shown to be unsubstantiated (Forness, 1974; Lilly, 1977; McDonald, 1968; Reger, 1972; Weiderholt, 1974).

Adhering to this regimen will have profound effects. In addition to perpetuating a system founded in supposition and nonfact, it will overshadow the significance of determining exceptionality by observation and evaluation of skill domains. Consequently, the practice of designing instructional programs based on continuous assessment and identification of learner needs will be delayed. More importantly, perhaps, adherence to a categorical system of resource allocation may preclude service to the yet to be served because the nature of their instructional needs may prohibit a "categorical diagnosis."

It is time for progressive change. One level of change is to modify the present method of allocating financial resources for program support. If the instructional needs of the yet to be served are to be met, modification of our resource allocation patterns must be made. Reports (Bernstein, Kirst, Hartman & Marshall, 1976; McLure, Burnham, & Henderson, 1975; Hobbs, 1975; Levin, 1978; Lilly, 1977; Reynolds & Birch, 1977; Rossmiller, Hale & Frohreich, 1970) of various funding plans show that resource allocation systems designed to meet the needs of the yet to be served should accomplish the following:

1. Modify eligibility criteria for special services so that they (a) assess areas of learner need and identify specific skill deficits; (b) are relative to cultural or ethnic group age peers; and (c) do not assume that *all* instructional needs are based on the child's disability.

2. Compensate cross categorical or noncategorical teaching to (a) enable comprehensive assessment and identification of learner needs; (b) provide systematic teaching practices designed to remediate identified learner needs; and (c) enable instruction to be designed to the shared needs of many children.

3. Shift the financial reimbursement system from a child count to the support of the teacher and support personnel.

4. Reimburse local education agencies for developing special instructional and compensatory programs (or program components) designed to accommodate varied exceptionalities and needs.

5. Allow an equitable dollar distribution to severely, mildly, and mainstreamed handicapped children as well as gifted children.

Acquiring the funds needed to fulfill the promise of an appropriate, individualized education program for the unserved and underserved remains a problem for both legislative and educational leaders. Failure to solve the problem will lead to continued failure to actualize our promise to the yet to be served.

Three Issues

There are three issues that are not discussed in subsequent articles. These issues bear on the education of the underserved and unserved and must be mentioned. The issues include (a) fragmentation of effort; (b) the insular focus of traditional special education; and (c) substantive compliance with the promises that are implicit in Public Law 94-142 and much of our current special education literature.

Fragmentation

As a profession, special education is very fragmented. The fragmentation is the result of professional practices and personal preferences. Historically, we have divided exceptional children into discrete subgroups and developed discrete, separate programs for the preparation of personnel to teach a particular categorical subgroup. In some local education agencies, service delivery for different groups of exceptional children was sometimes assigned to unrelated administrative units.

By focusing on the differences between exceptional children, we produced multiple subprofessions within special education. We have created a situation wherein special educators interested in one category of exceptionality fail to see themselves as having anything in common with special educators interested in a different group of exceptional children. We have also created a situation wherein persons interested in a given category of child sometimes compete against other categories of exceptionality in order to secure a more advantageous share of scarce resources.

By competing with one another, we are weakening our overall effort in behalf of the served, underserved, and unserved exceptional children. This fragmentation of effort, interest, and rhetoric serves to confuse the public and their legislators, retard the improvement of services for all exceptional children, and create false schisms within the profession.

By these comments we are not condemning an interest in a particular group of exceptional children. We are, however, urging that when we serve as an advocate for a specific group of exceptional children, we also advocate for the other groups as well. Coalitions have been effective for parents of exceptional children. Coalitions should be equally effective for special educators. Only through common, coordinated efforts in behalf of all exceptional children can we develop the comprehensive programs needed to meet the needs of the yet to be served.

Insular Focus

Since the early 1900's, the education of exceptional children has been a phenomenon increasingly identified with the public school. Public Law 94-142 makes the provision of educational services to handicapped children the responsibility of the local and state education agency. While the locus of responsibility is appropriate, the historical focus on the public school has made many special educators myopic about where special education occurs.

Instructional programs for institutionalized mentally retarded and emotionally disturbed children were frequently outside the purview of the public school. This was also true of educational services for handicapped children in juvenile detention facilities.

As a result of these practices, the public school classroom became the focus of special education efforts. As is evident from this issue of *Exceptional Children*, many of the yet to be served are found in settings outside the traditional focal point of special education. As a result of our insular focus, the development of special education services for children in unusual settings has been retarded.

If we are to accelerate the rate at which the state of our art develops, we must become less insular in focus. We must become more outgoing. As noted by Reynolds and Birch (1977), special education is being provided in settings that are increasingly diverse and decentralized. Maintenance of this trend is important if we are going to provide an appropriate education for the yet to be served.

Substantive Compliance

Substantive compliance with the promises inherent in Public Law 94-142 and *Futures of Children* is necessary if we are to meet the educational needs of the yet to be served. Substantive compliance means developing the best service plan possible for all exceptional children. This plan is committed to the ideology represented by human rights legislation and the right to education principle.

State and local education agencies are hurriedly developing procedural compliance guidelines and monitoring systems. Proce-

dural compliance plans are being developed without the benefit of adequate opportunity to analyze all the implications of meeting the varied and comprehensive requirements of the law. The result seems to be a trend toward meeting minimum standards only. Meeting minimum standards is procedural compliance with the law.

Forces that work against the development of plans to achieve substantive compliance are varied and complex. Some of these forces include the following facts (Clifford, 1978; Hobbs, 1975; McDermott & Aron, 1978; Reynolds & Birch, 1977; Sarason & Doris, 1978):

1. Not everyone supports the right to education principle.
2. Attitudinal problems toward the handicapped are ever present.
3. Teacher associations are not always enthusiastic about mainstreaming and its implications.
4. Teachers are becoming vocal about the lack of adequate funding and resources needed to teach exceptional children and/or maintain mainstreaming programs.
5. Preservice and inservice training programs have not prepared regular or special educators for their emerging roles.
6. Support for many "special" programs is decreasing because of the accompanying problems and bureaucratic paper chase.

These problems will not be alleviated by focusing on procedural compliance. They can only be overcome through concerted efforts focused on the development of long range plans designed to achieve the best possible education for all children of a community. Reynolds and Birch (1977) document a number of locales where such plans are being developed and implemented.

Substantive compliance will improve educational opportunities for all children. Only through substantive compliance will we be able to keep our promise to the yet to be served.

Concluding Comments

All handicapped children have been promised a free appropriate education. The promise recognizes that some handicapped children are not yet receiving services and that some handicapped children are underserved. This issue of the journal identifies a number of different groups of yet to be served exceptional children. Common to each of these groups is the fact that they exhibit motor, self help, cognitive, or personal-social skills which deviate significantly from the skill levels of their same age cultural or ethnic group peers. The articles that follow describe issues, problems, and programs related to the identification, evaluation, and education of the yet to be served. While a number of problems in meeting the educational needs of these groups are identified, the articles also document that the educational needs of unserved and underserved exceptional children can be met through coordinated efforts and instructional programs that are in substantive compliance with our promise.

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